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ICONES PLANTARUM;

OR

FIGURES,

WITH

BRIEF DESCRIPTIVE CHARACTERS AND REMARKS,

OF

NEW OR RARE PLANTS,

SELECTED FROM THE AUTHOR'S HERBARIUM.

By SIR WILLIAM JACKSON HOOKER, K.H.,

LL.D., F.R.A. AND L.S.,

MEMBER OF THE IMP. ACAD. NAT. CUR. &c., &c., &c.,

HONORARY MEMBER OF THE ROYAL IRISH ACADEMY, OF THE ROYAL MEDICAL AND CHIRURGICAL SOC. OF LONDON, &c., &c.

AND

REGIUS PROFESSOR OF BOTANY IN THE UNIVERSITY OF GLASGOW.

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MDCCCXXXVII.

TO

GEORGE BENTHAM, ESQ., F.L.S.

SECRETARY OF THE HORTICULTURAL SOCIETY,

AN ARDENT PROMOTER

(NOT LESS BY HIS PATRONAGE THAN BY HIS WRITINGS)

OF BOTANY AND HORTICULTURE,

THE PRESENT VOLUME

IS DEDICATED,

WITH SENTIMENTS OF HIGH REGARD AND ESTEEM,

BY HIS ATTACHED FRIEND

THE AUTHOR.

GLASGOW, *Oct.* 1, 1836.

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Anemone
hepaticifolia.

TAB. I.

Anemone hepaticifolia.

(Sect. *Omalocarpus*, DC.)

Foliis omnibus radicalibus longe petiolatis hastato-trilobis angulato-dentatis submarginatis hirsutiusculis, scapo elongato piloso, involucri foliolis sessilibus pinnatifidis, floribus umbellatis, sepalis 5 obovato-ellipticis.

Hab. Shady woods near the Bay of Valdivia, S. Chili. *Mr. Bridges* (*n.* 579).

Radix fibrosa. *Folia* omnia radicalia, petiolata, biuncialia et ultra, hastato-trilobata, subcoriacea, hirsutiuscula (subtus præcipue), lobis acutiusculis anguste marginatis, angulato-dentatis; petiolis longitudine foliorum, hirsutis. *Scapus* 1—2-pedalis, erectus, pilis laxis hirsutus, *umbella* 3—5-flora terminatus. *Involucrum* triphyllum; foliolis biuncialibus, sessilibus, hirsutulis, pedicellis hirsutis subæque longis. *Flores* majusculi, ut videtur, ochroleuci: *Sepala* 5, patentia, obovato-elliptica, striata. *Stamina* numerosa. *Antheræ* adnatæ, apice appendiculatæ. *Ovaria* elliptica, stylo breviusculo nudo recurvato terminata.

A very distinct and well-marked species of *Anemone*, called "*Estrella*" by the natives of Valdivia.

Fig. 1. Stamen. *f.* 2. Pistil :—*magnified.*

Corræa *Backhousiana.*

Allan & Ferguson

TAB. II.

Corræa Backhousiana.

Foliis patentibus ovatis integerrimis supra viridibus glabris sæpe impresso-punctatis subtus pannosis rufidulis, floribus 1—3 terminalibus oblongis erectis vel pendulis, calycibus truncatis, staminibus subinclusis.

Corræa Backhousiana, *Hook. in Bot. Journ., p.* 253. *Comp. to Bot. Mag. v.* 1. *p.* 276.

Hab. Van Diemen's Land. Environs of Hobart Town and Macquarrie Harbour. *Mr. A. Cunningham.* Cape Grim, on the west coast, abundant. *Mr. James Backhouse.* Woolworth, N. W. corner of the island. *Mr. Gunn* (*n.* 456).

This very handsome species is undoubtedly nearly allied to *Corræa rufa, Labill. Voy. t.* 17, but in our plant the calyx is quite truncated, in that it has distinct and broad teeth.

Correa
ferruginea.

Allan & Ferguson Lithog.

TAB. III.

Corræa ferruginea.

Foliis patentibus ellipticis oblongisve integerrimis supra glabris subtus ramulisque ferrugineo-tomentosis, floribus 1—3 terminalibus cylindraceis pendulis, dentibus calycinis brevibus acutis, staminibus longe exsertis.

Corræa ferruginea. *Backh. in Ross's Hobart Town Almanack*, 1835, *p.* 80. *Hook. Comp. to Bot. Mag. v.* 1. *p.* 276.

Hab. Middle and upper regions of Mount Wellington. *Mr. James Backhouse:* discovered, October, 1834. *Mr. Gunn* (*n.* 557).

An extremely beautiful species, and rendered doubly interesting from being distinguished in the first botanical production that has issued from the native press of the rising colony of Van Diemen's Land: and from which some extracts are given in the 2d volume of our "Companion to the Botanical Magazine," *p.* 38. In this species of *Corræa* the leaves are unusually large, some of them more than two inches in length; the flowers are long, narrow, yellow-green, the calyx rufous; the stamens much exserted.

Ophioglossum palmatum.

Allan & Irvine lithog.

TAB. IV.

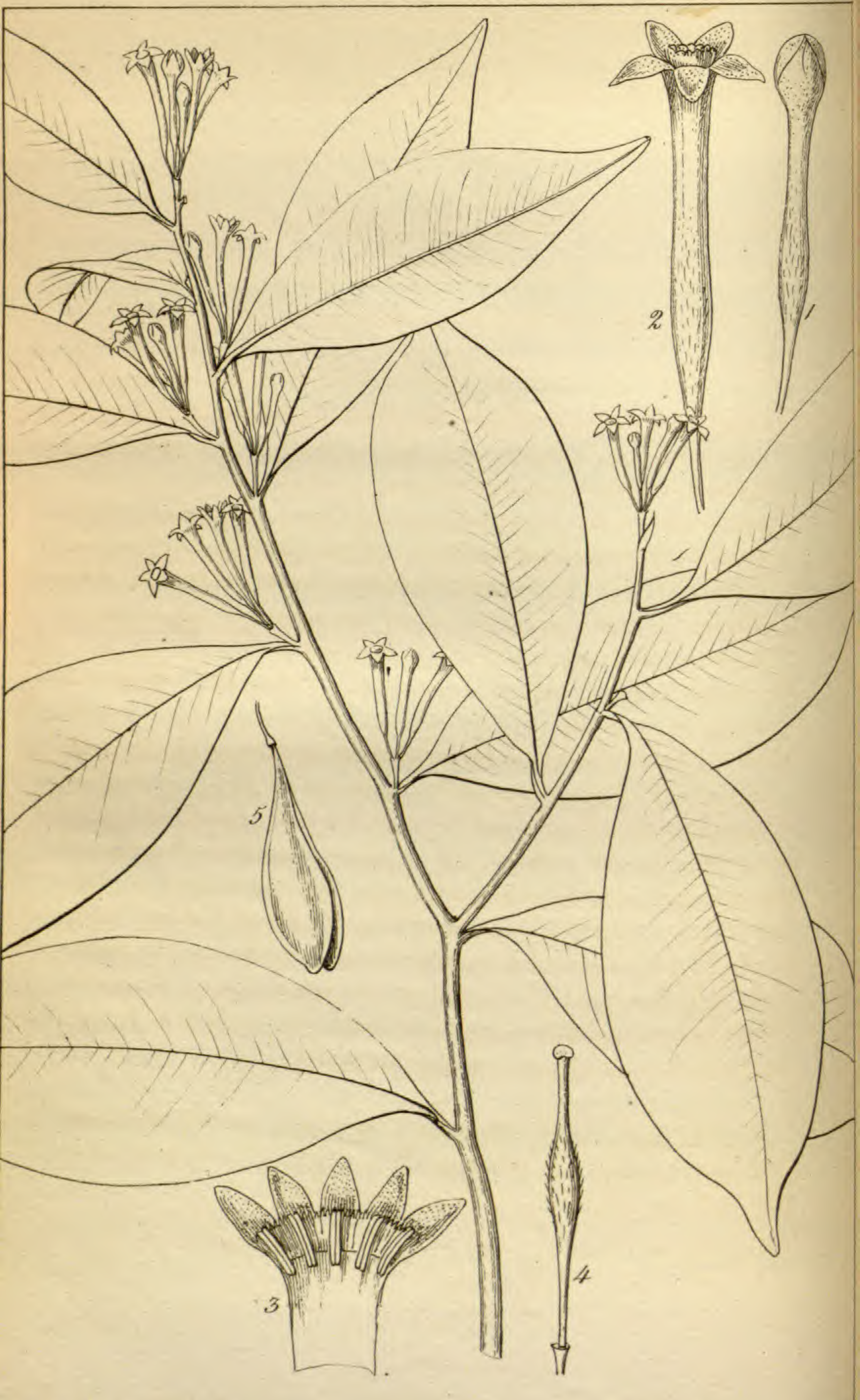
Ophioglossum palmatum.

Spicis pluribus sessilibus vel breviter pedunculatis ad basin frondis palmatæ insertis.

Ophioglossum palmatum. *Plum. Foug. de l'Am. p.* 139. *t.* 163. *Linn. Sp. Pl. p.* 1518. *Willd. Sp. Pl. v.* 5. *p.* 61. *Spreng. Syst. Veget. v.* 4. *p.* 61.

Hab. Near a brook at Le fond de Baudin near Léogane, St. Domingo, and only there. *Plumier.* Bourbon, very rare. *M. Lepervanche Meyrien.* Growing with various epiphytes from the axils of the leaves of a species of Palm, at Rio Sein, S. Brazil. *Mr. Tweedie* (*n.* 519).

Few if any species of Fern have been considered of such rare occurrence as the present very remarkable one. Of all authors Plumier alone, its first describer, seems to have seen it; and he declares, "Je n'ay jamais rencontré cette plante qu'une seule fois, dans tous mes trois voyages dans les isles d'Amérique"— and that was in the locality above-mentioned. I was then not a little, and certainly most agreeably, surprised, in 1830, to receive the specimen here figured from the isle de Bourbon, through the favour of my obliging correspondent, M. Bouton: and no less so, shortly after, on the arrival of specimens from Mr. Tweedie, which that industrious naturalist collected in South Brazil. There can be no doubt of the specific identity of all the three. Our specimen from Bourbon, the one here figured, is indeed very small: those from S. America are nearly twice the size, but still considerably smaller than the original plant from St. Domingo.



Allan & Ferguson lithog.

Gyrinops Walla.

TAB. V.

GYRINOPS WALLA.

CHAR. GEN. *Perianthium* longe tubulosum, basi attenuatum, tenue, coloratum; *tubus* intus glaber. *Antheræ* 5, perianthii lobis oppositæ, sessiles. *Ovarium* longe stipitatum, oblongum, apice in stylum conico-filiformem attenuatum. *Stigma* compresso-globosum. *Capsula* longe stipitatum, coriaceum.—*Tota Planta colore aurantiaco suffusa.* Liber *valde tenax, omnino ut in* THYMELEIS. Folia *elliptico-oblonga, subiter acuminata, apice obtuso.* Perianthium (*in sicco*) *aurantiacum, novem lineas longum, vix semilineam latum. Arn. mst.*

Gyrinops Walla. *Gærtn. Fruct. v. 2. p. 276. t. 140. De Cand. Prodr. v. 1. p. 60.*

HAB. Ceylon: whence I received the specimens from which the annexed figure was made, by favour of *Mrs. Col. Walker.*

A figure of this rare and little known plant cannot fail to be acceptable to the public. Mr. Arnott's amended character of the natural order to which it belongs (AQUILARINEÆ) is published in Dr. Lindley's excellent "Nat. System of Botany," ed. 2. p. 296. I here give the generic character of the same Botanist: and, with our next plate, that of the allied Genus *Aquilaria.* Of *Gyrinops* only one species is known. Its habit is extremely like that of some slender species of *Daphne.*

Fig. 1. Bud. *f.* 2. Flower. *f.* 3. Upper part of the flower laid open to show the stamens. *f.* 4. Pistil. *f.* 5. Capsule (*nat. size:* all the other figures being *magnified*).

Aquilaria Agallocha.

TAB. VI.

AQUILARIA AGALLOCHA.

ALOES, or EAGLE-WOOD.

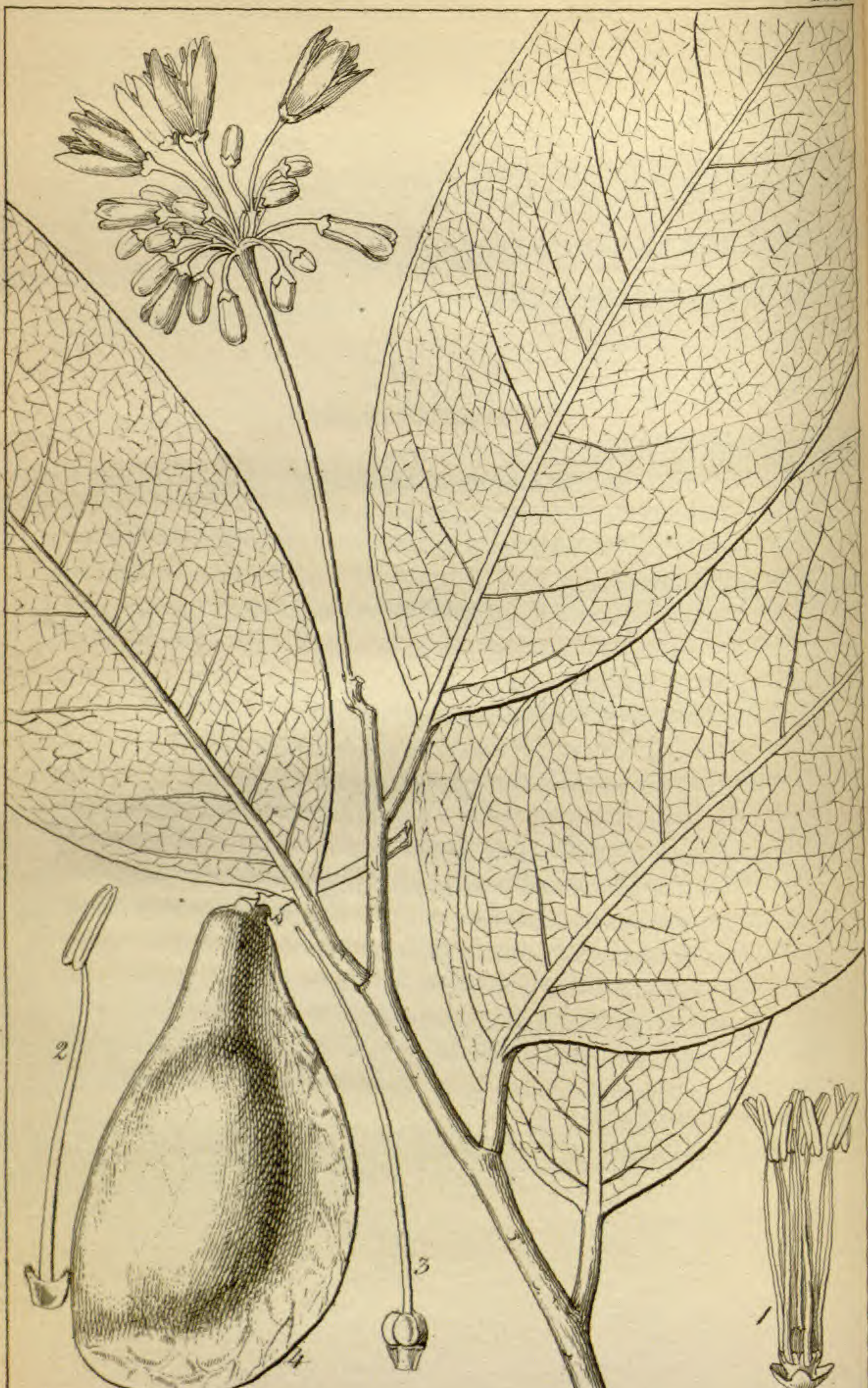
CHAR. GEN. *Perianthium* turbinatum, coriaceum: *tubus* intus squamis descendentibus hirsutis tectus. *Stamina* fertilia 10: *filamenta* breviuscula. *Ovarium* sessile, obovatum, obtusum. *Stigma* sessile, convexum. *Capsula* sessilis, lignosa. *Arn. mst.*

Aquilaria *Agallocha;* foliis lanceolatis acuminatis, umbellis subsessilibus axillaribus terminalibusque.

Aquilaria Agallocha. *Roxb. Cat. p.* 33. *Wall. Cat. n.* 7250.

This plant, so rare that De Candolle places it among "*species non satis notæ,*" is a native of mountains in Silhet and some eastern provinces of Bengal, and has been distributed by Dr. Wallich. It forms a vast tree 120 feet in height, with a trunk 12 feet in circumference. Its wood is white, very light, soft and porous, and contains the precious perfume, known in the Eastern nations as *Aggur* or *Uggor*, in dark-coloured veins within the wood. The oil is procured by bruising these portions in a mortar, and boiling them in water, when the Aggur rises to the surface. *Roxb. MSS. in E. I. C. Libr.*

Fig. 1. Flower. *f.* 2. the same laid open; *magnified.*



Samadera Indica.

Allan & Ferguson lithog.

TAB. VII.

Samadera Indica.

Arborea, foliis oblongo-ellipticis utrinque obtusis, umbellis longe pedunculatis, petalis 4—5, drupa vix reticulata putamine fungoso crasso.

Samandura. *Herm. Zeyl.* 5. 11. *Linn. Fl. Zeyl. p.* 202.

Samadera Indica. *Gærtn. Fruct. t.* 156. *Wight. Cat. n.* 361. *Wight et Arn. Fl. Penis. Ind. Or. v.* 1. *p.* 151.

Niota pentapetala. *Poir. Encycl.* 4. *p.* 490. *De Cand. Prodr. v.* 1. *p.* 592.

Niota tetrapetala. *Wall. Cat. n.* 6349 (*non Lam.*).

Vittmannia elliptica. *Vahl, Symb.* 3. *p.* 52. *t.* 60.

Rheede, Hort. Mal. 6. *t.* 18.

Hab. Ceylon. *Col. Walker.*

Dr. Wallich's *Niota lucida*, from the Birman country, differs from the present species in its smaller leaves, which are more acute at both extremities, shorter peduncles (when in flower) and smaller fruit, less compressed at the margin and strongly reticulated with veins on the surface.

Fig. 1. Flower from which the petals are removed. *f.* 2. Stamen with the gland at the base. *f.* 3. Pistil: *magnified.* *f.* 4. Fruit: *nat. size.*

Allen & Ferguson

Todea pellucida.

TAB. VIII.

Todea pellucida.

Frondibus bipinnatis membranaceis, pinnulis oblongo-lanceolatis profunde pinnatifidis, segmentis linearibus acutis integris vel bifidis, pinnarum rachi subtus hirsuta.

Todea pellucida. *Carm. mst.—Grev. & Hook. in Bot. Misc. v.* 3. *p.* 232.

T. hymenophylloides. *Less. et Rich. Voy. de l'Astrolabe, v.* 2. *p.* 97. *t.* 16.

Hab. Banks of the Cowa Cowa, New Zealand.

I possess this beautiful plant from the late Captain Carmichael, marked with the name and station above given, but I know not by whom it was gathered. It has the colour and texture of *Hymenophyllum* or *Trichomanes*, and the fructification of *Todea*.

Fig. 1. Under side of a portion of the frond, showing the fructification. *f.* 2. Capsule. *f.* 3. shows the reticulated structure of the frond :—*magnified*.

Allan & Ferguson lithog.

Pernettia pumila.

TAB. IX.

PERNETTIA PUMILA.

Humilis, caulibus procumbentibus, foliis ovatis obtusis supra convexis subtus carinatis marginibus subtilissime cartilagineo-crenulatis.

Arbutus pumila. *Linn. Suppl. p.* 239. *Forst. Comment. Goett.* 9. *p.* 32. *Willd. Sp. Pl. v.* 2. *p.* 619.

HAB. South part of Terra del Fuego (*n.* 171), at an elevation of 2000 feet:—Cape Tres Montes, Lat. 47°. W. Patagonia. *C. Darwin, Esq.*, Dec. 1834 (*n.* 503).

Gaudichaud, who established the genus *Pernettia* in the *Annales des Sciences Naturelles*, at first confidently referred the *Arbutus pumila*, Linn., to his *Pernettia empetrifolia* from the Falkland Islands; but afterwards, in the "*Voyage*," introduced it as a synonym, with a mark of interrogation: and I think it will be found that the description of Linnæus better accords with that which I here figure from Terra del Fuego and Cape Tres Montes. Freycinet's plant is very much larger, a single branch being represented 9 or 10 inches high, nor do the leaves appear to have the minutely crenated cartilaginous margin which is so remarkable in our plant.

Fig. 1. Peduncle and flower. *f.* 2, 3. Front and back view of an anther. *f.* 4. Pistil. *f.* 5. Front, and *f.* 6. Back view of a leaf, *magnified*. *f.* 7. Portion of the margin of a leaf, highly *magnified*.

Allan & Ferguson lith.

Clematis Bojeri.

TAB. X

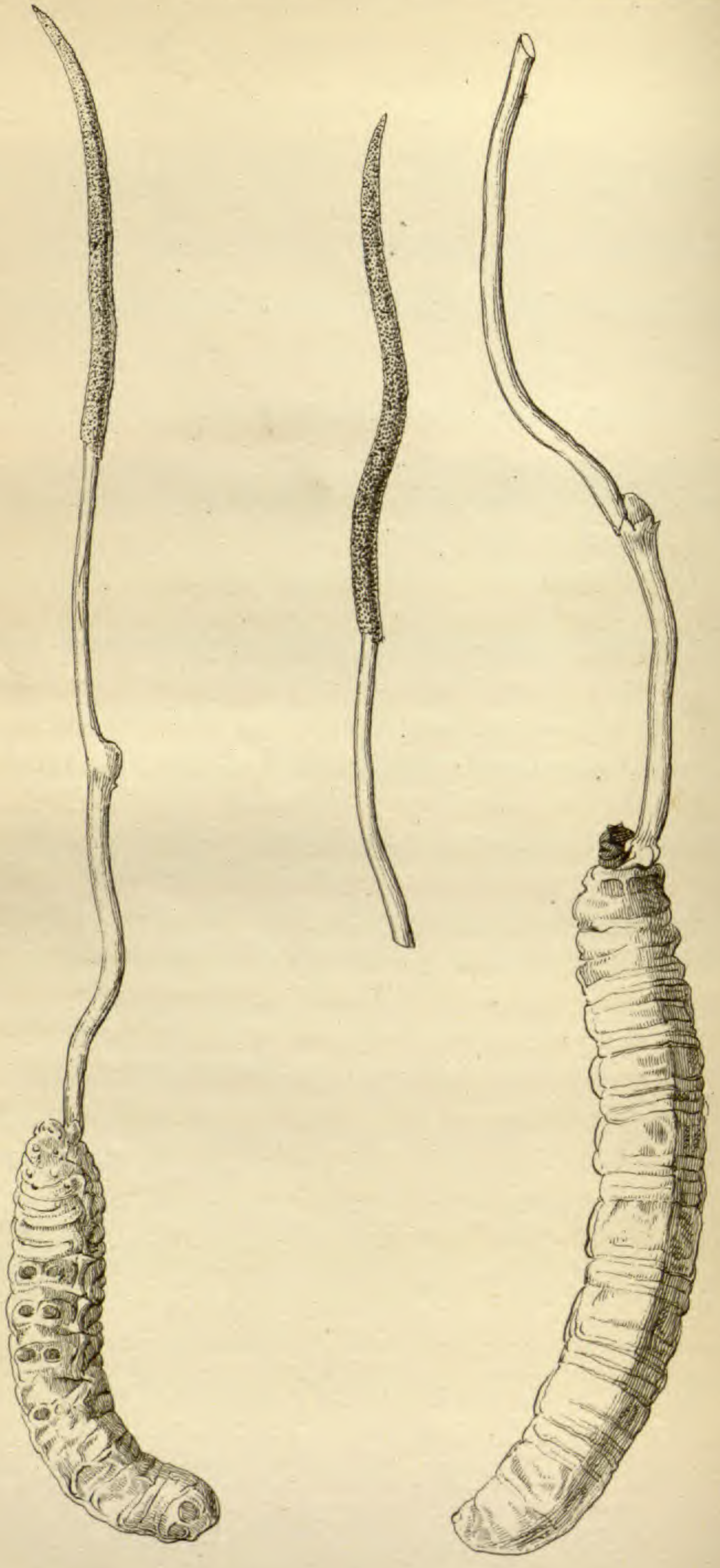
Clematis Bojeri.

Scandens? sericeo-pilosa, foliis quinatim-ternatimve pinnatis foliolis ovatis lobatis inciso-serratis, panicula subsimplici terminali, floribus hermaphroditis, sepalis 4 (magnis) ovato-acuminatis utrinque sericeis, caudis sericeo-villosissimis.

Clematopsis suaveolens. *Bojer, mst.*

Hab. Madagascar. *Dr. Lyall.*

This is one of several species of *Clematis* sent me from the island of Madagascar by the late Dr. Lyall, differing strikingly from any described species, and of which has been constituted a new Genus in Mr. Bojer's *Mss.* under the name of *Clematopsis.* But I am not aware of any character to warrant such a separation. All have singularly large flowers, and most of them very long peduncles.



Allan & Ferguson lithog.

Sphæria Robertsii.

TAB. XI.

Sphæria Robertsii.

(Sect. Cordyceps.)

Nigra suberosa, stipite elongato flexuoso simplice (vel ramoso), capitulo elongato acuminato vermiculiformi.

Hab. New Zealand; parasitic on the larva of an insect. *Mr. Roberts.*

This vegetable production, so remarkable for its locality, was given to my friend Dr. Wingate Johnston, (to whom I am indebted for the specimens here figured,) by Mr. Roberts, who brought it from New Zealand. It is there not uncommon, always growing on the dead larva of a peculiar insect which feeds upon the Sweet Potatoe *(Convolvulus Batatas)*; and, in all the specimens that I have seen, it springs from the back of the neck, just below the head. The larva though, probably when living, of a very soft or fleshy character, when dead becomes perfectly hard and almost horny; so that were it not for the colour, it would appear to form one substance with the parasite. Although my specimens are simple, yet there is on each an appearance that would indicate the stipes to be sometimes branched. The whole plant is of a perfectly black colour, and both the stipes and head are very much elongated.

Allan & Ferguson lithog.

Extoxicum punctatum.

TAB. XII.

ÆXTOXICUM PUNCTATUM.

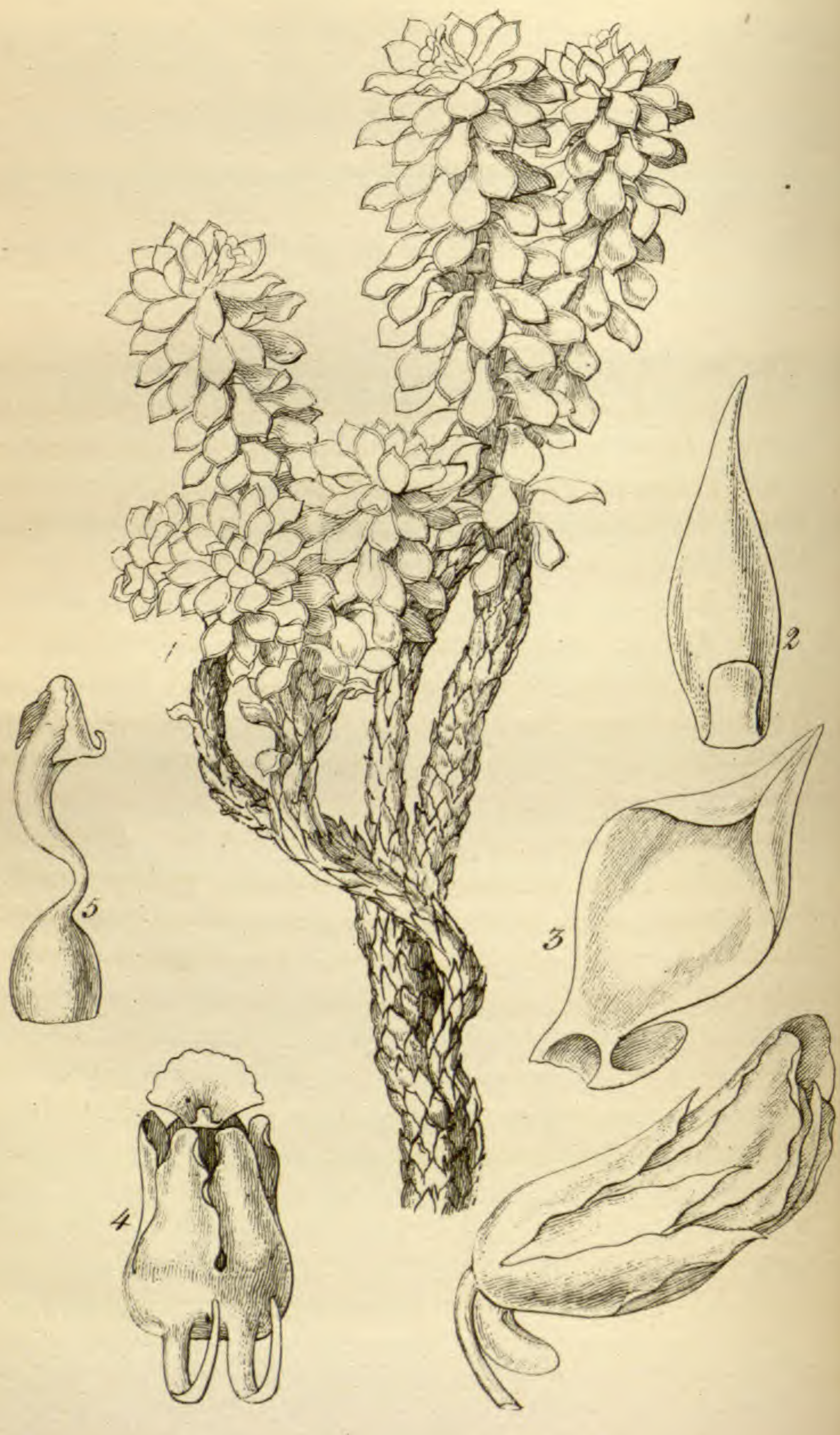
Æxtoxicum punctatum. *Ruiz et Pav. Syst. Veget. Fl. Peruv. et Chil. p.* 260.

HAB. Woods in the Provinces of Conception, Cauquenes, Puchacay, Rere and Irata. *Ruiz et Pavon.* In the immense woods of the Province of Valdivia (*n.* 558); and at Cujon de San Pedro, Quillota (*n.* 505), *Bridges.*

"A sombre looking *Tree*, 50 feet in height, forming immense woods" (*Bridges*). Young *branches* clothed with ferruginous scales. *Leaves* mostly opposite, evergreen, glabrous above, whitish and mealy with rusty scales beneath. *Flowers* in axillary recemes. I regret that I am unable to say with certainty to what Order this tree should be referred; probably to *Euphorbiaceæ*. It is omitted by Professor Lindley in his "Nat. System of Botany." The plant is dioecious. Female flowers I have not seen; and only a solitary specimen of a scarcely mature fruit, from which I extracted a large embryo, such as is represented at *f.* 11.*

Fig. 1. Male flower with the exterior furfuraceous calyx bursting irregularly. 4. 4. 4. Three outer sepals of the inner calyx, removed from *f.* 3. where the three inner sepals of the same remain attached to the flower. *f.* 2. Flower from which the outer and inner calyx are removed, showed the unexpanded petals, 5 in number. *f.* 5. Flower expanded; in which state the double calyx has fallen away. *f.* 6. Petal, to show the longitudinal lamella. *f.* 7. Side view of the same, the petals being removed, and, *f.* 8, The 5 nectaries surrounding the abortive pistil; one stamen remaining to show its insertion. *f.* 9. Stamen. *f.* 10. Drupa (*nat. size*). *f.* 11. Embryo:—all but *f.* 10 more or less *magnified.*

* Planks and beams are made of the wood, and the berries are said to be a powerful poison to goats, whence arises the generic name given by Ruiz and Pavon.



Allan & Ferguson lith.

Viola Cotyledon.

TAB. XIII.

Viola Cotyledon.

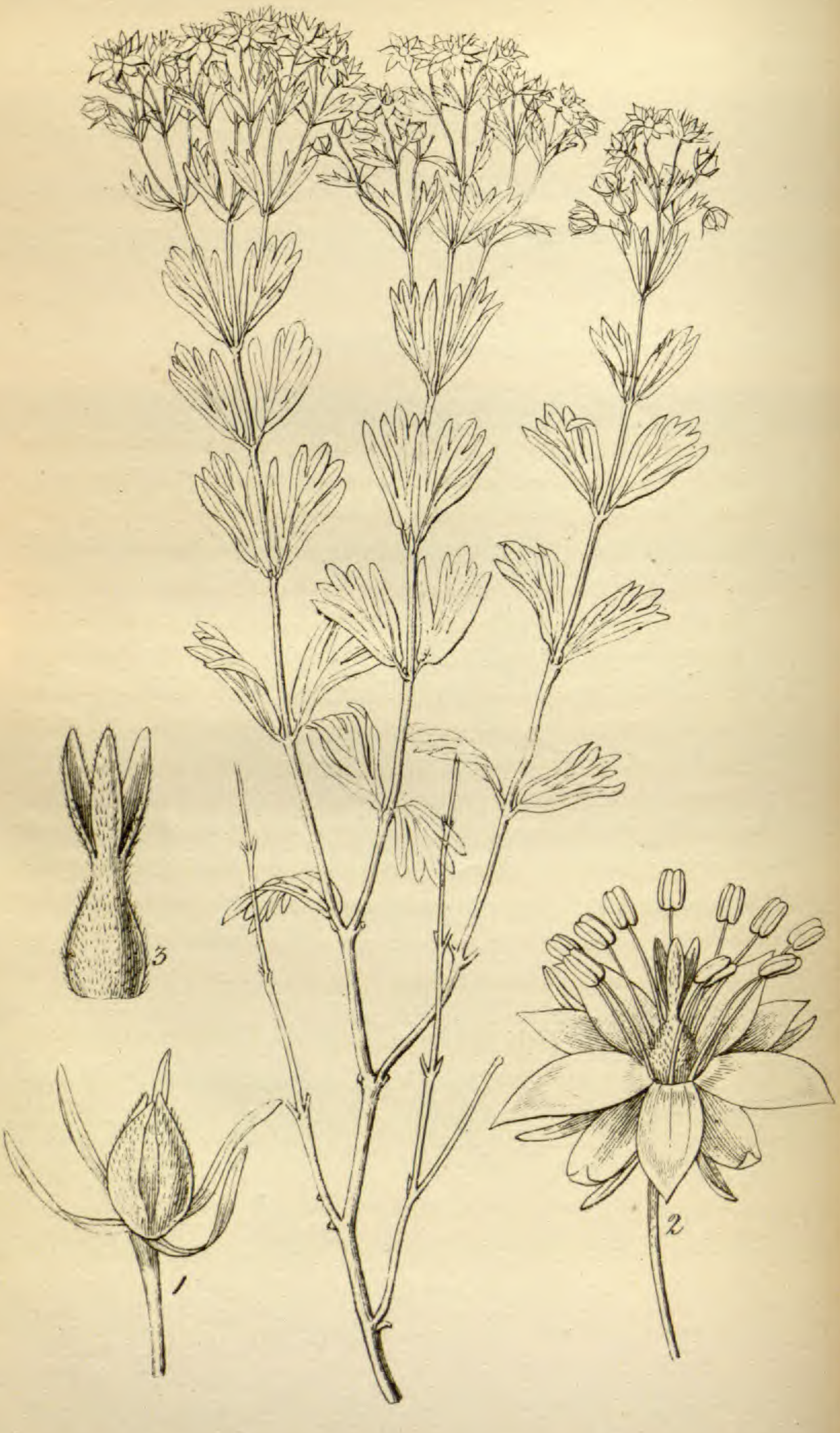
Fruticosa, ramis crassis tortuosis, foliis patenti-reflexis confertis coriaceis rhombeo-spathulatis cartilagineo-marginatis glaberrimis, flore terminali subsolitario subsessili, calycibus basi non productis, calcare brevi inflexo.

Viola Cotyledon. *Gingins, in De Cand. Prodr. v.* 1. *p.* 300.

Hab. At a great elevation on the Volcano of Antuco, S. Chili. *Mr. Reynolds* (*n.* 94).

The Andes of South America, both intra- and extra-tropical, are remarkable for producing several species of *Viola*, so different in habit from the more usual forms of that extensive genus, that at first sight we can hardly bring ourselves to think they belong to it at all. *Viola Asterias*, *pusilla*, *congesta* and *volcanica*, described by Hooker and Arnott in the *Bot. Miscellany*, are of this number: and to these the present one may assuredly be added, whose leaves in texture and even in form not unaptly resemble those of *Saxifraga Cotyledon*. The stigma is very large, somewhat triangular and peltate.

Fig. 1. Flower. *f.* 2. Under side of the lower (or spurred) petal. *f.* 3. Upper side of do. *f.* 4. Stamens including the pistil. *f.* 5. Pistil;—*magnified.*



Allan & Ferguson

Ledocarpum Reynoldsii.

TAB. XIV.

LEDOCARPUM REYNOLDSII.

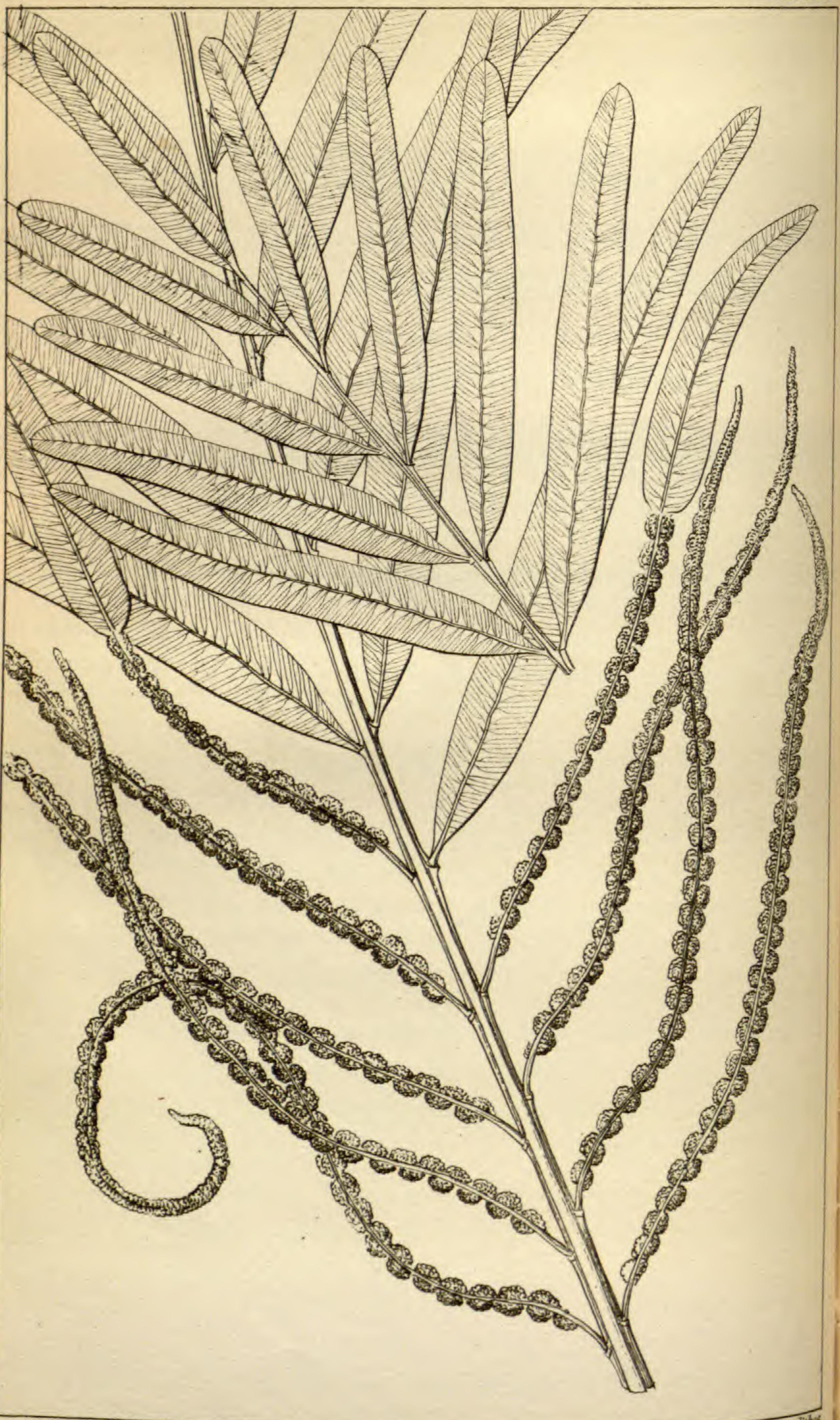
Foliis cuneatis venosis apice inciso-subpalmatis, corymbis terminalibus multifloris, petalis lanceolatis, stigmatibus tribus.

HAB. Araucania. S. Chili. *Mr. Reynolds* (*n.* 8). Cordillera of Chili. *Bridges* (*n.* 535, without flower or fruit).

Erectum, ramosum, ramis glabris inferne denudatis. *Folia* opposita, parce villosa, cuneata, brevissime petiolata, magis minusve profunde palmatim incisa, venosa. *Corymbi* terminales, foliosi, multiflori. *Involucri* pentaphylli *foliolia* linearia, patentia. *Sepala* extus sericea. *Petala* parva, acuta. *Stamina* 10. *Germen* sericeum. *Stigmata* 3, sessilia, lanceolata.

This is the 4th species now known to us of the Genus *Ledocarpum*—two of which, the original *L. Chiloense* and the present, are natives of extra-tropical S. America, and *L.* (*Cruckshanksia*, Hook.) *cistiflora*, Hook., and *L. pedunculare*, Lindley, (if indeed this latter be really different from the preceding,) of Peru :—all are indigenous to the Pacific side of S. America.

Fig. 1. Bud, with the involucre. *f.* 2. Expanded flower. *f.* 3. Pistil :—*magnified.*



Allan & Ferguson lithog.

Osmunda Vachellii.

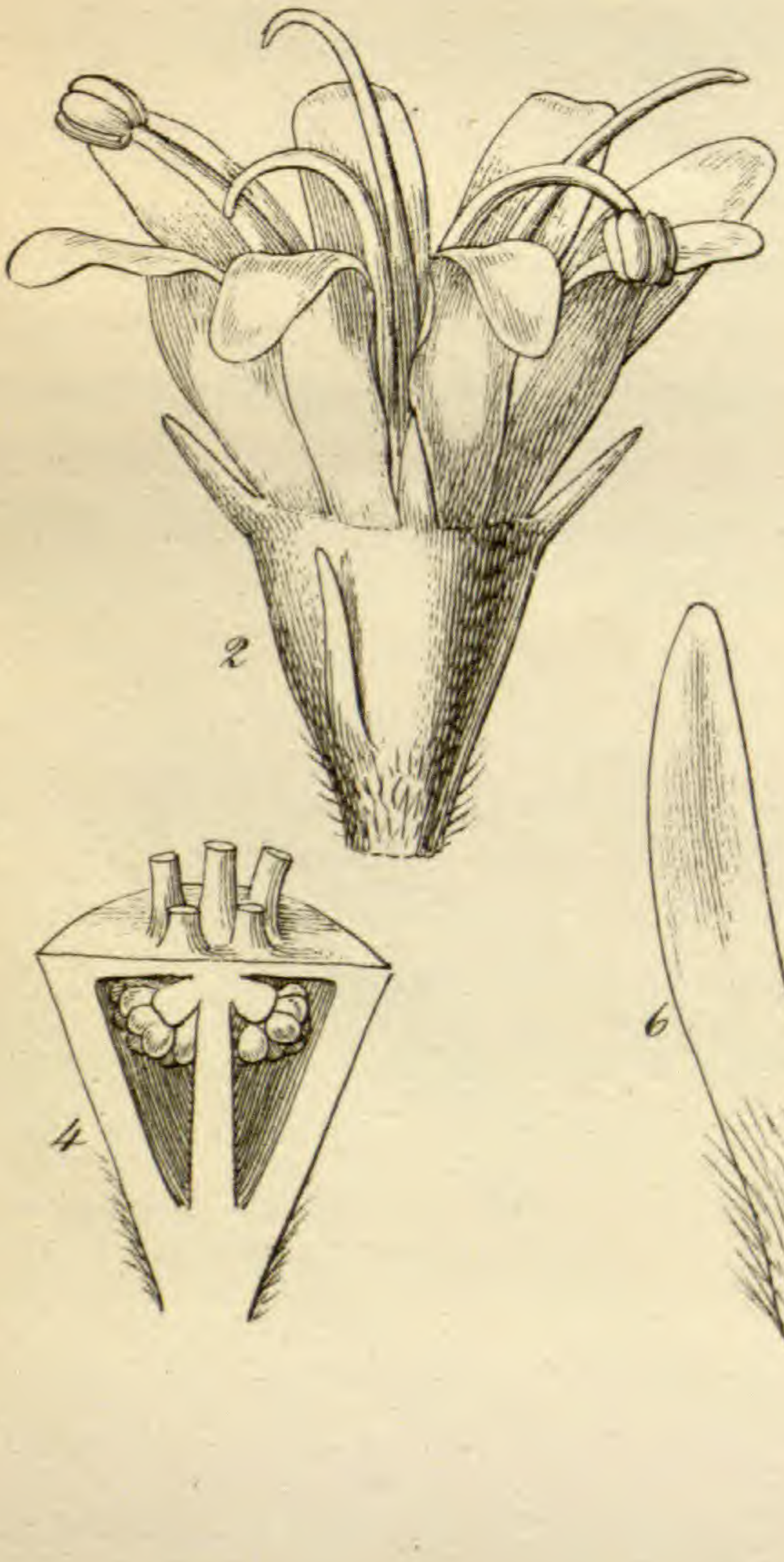
TAB. XV.

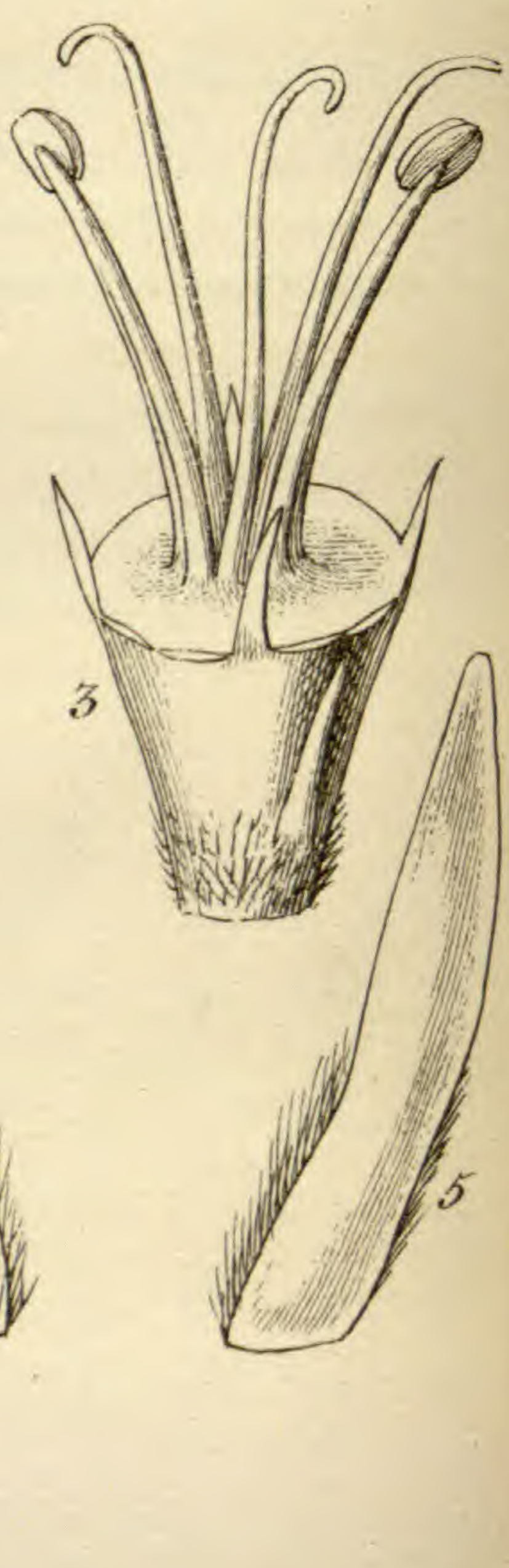
Osmunda Vachellii.

Fronde pinnata basi fructificante, pinnis lineari-lanceolatis coriaceis ubique integerrimis.

Hab. Lappas Island, China. *Rev. G. H. Vachell.*

A very beautiful species of *Osmunda*, allied to the *O. Javanica* of Blume, of which latter I possess specimens gathered in Ceylon by Colonel Walker. From that species it differs in the pinnæ being always quite entire and the lower (not the middle) ones bearing the fructifications.





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Donatia Magellanica.

TAB. XVI.

Donatia Magellanica.

Donatia fascicularis. *Forst. Gen. t.* 5.
Donatia Magellanica. *Lam. Ill. t.* 51. *De Cand. Prodr. v.* 4. *p.* 53.
Polycarpon Magellanicum. *Linn. Suppl. p.* 115.
Hab. Chonos Archipelago. Dec. 1834. *C. Darwin, Esq.* (*n.* 57).

A rare and very interesting little antarctic plant, remarkable for the varied number of the different parts of its flower. The *stems* are scarcely 2 inches in height. The *leaves* are numerous and densely imbricated, linear, hairy in the axils. *Flowers* sessile, solitary. *Germen* turbinate, incorporated with the tube of the calyx, bearing a small subulate bractea, and 4 minute, remote, subulate calycine segments. *Petals* apparently on the same series with the calycine segments, in the plant I examined 8 in number. *Stamens* 9. *Styles* 3. Cells of the *ovary* 3. *Ovules* several, suspended from the top of the cell.

Fig. 1. Plants: *nat. size.* *f.* 2. Flower. *f.* 3. Do. From which the petals are removed. *f.* 4. Vertical section of the germen. *f.* 5. Back, and *f.* 6, Front view of a leaf:—*magnified.*

Fig. 1.

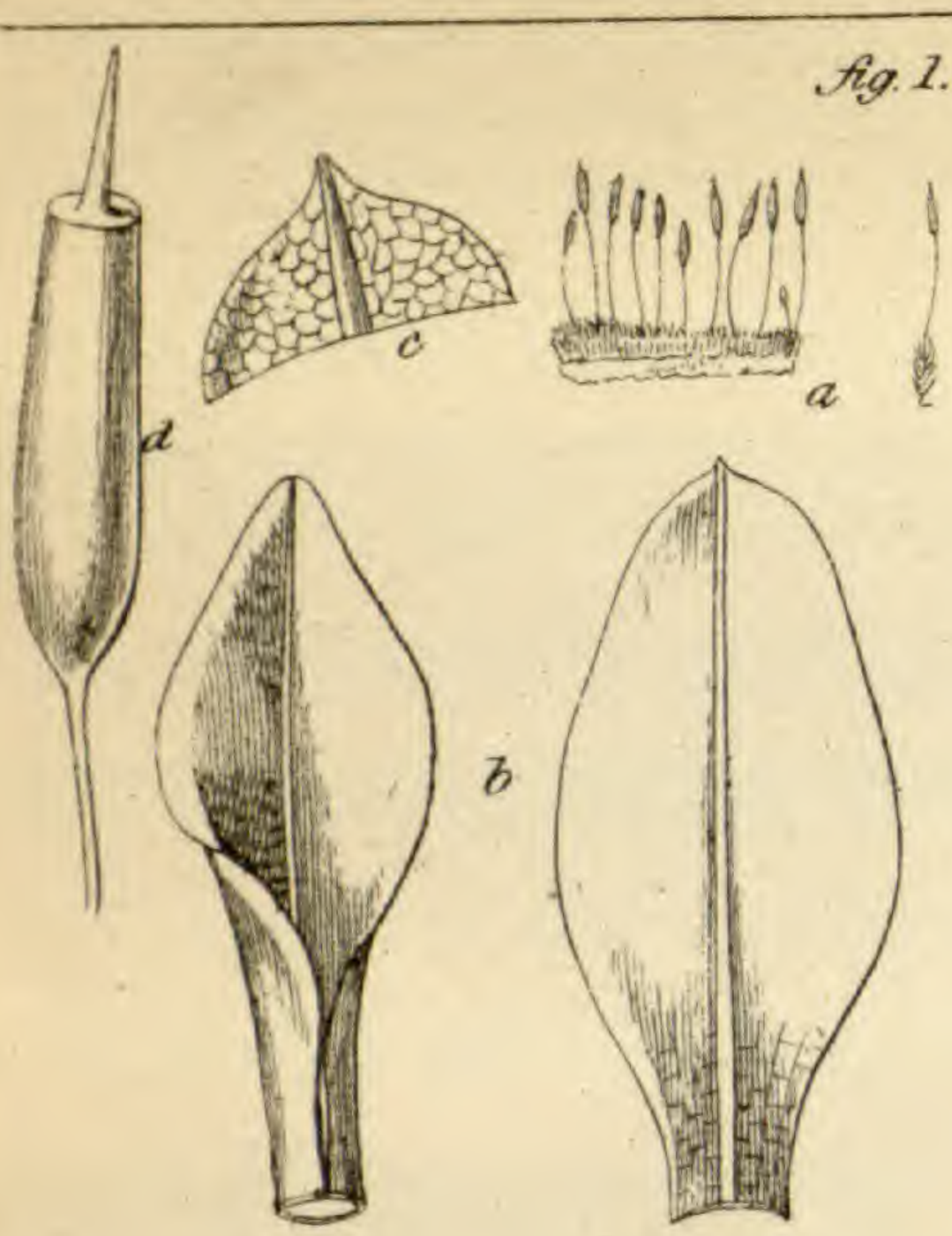


Fig. 2.

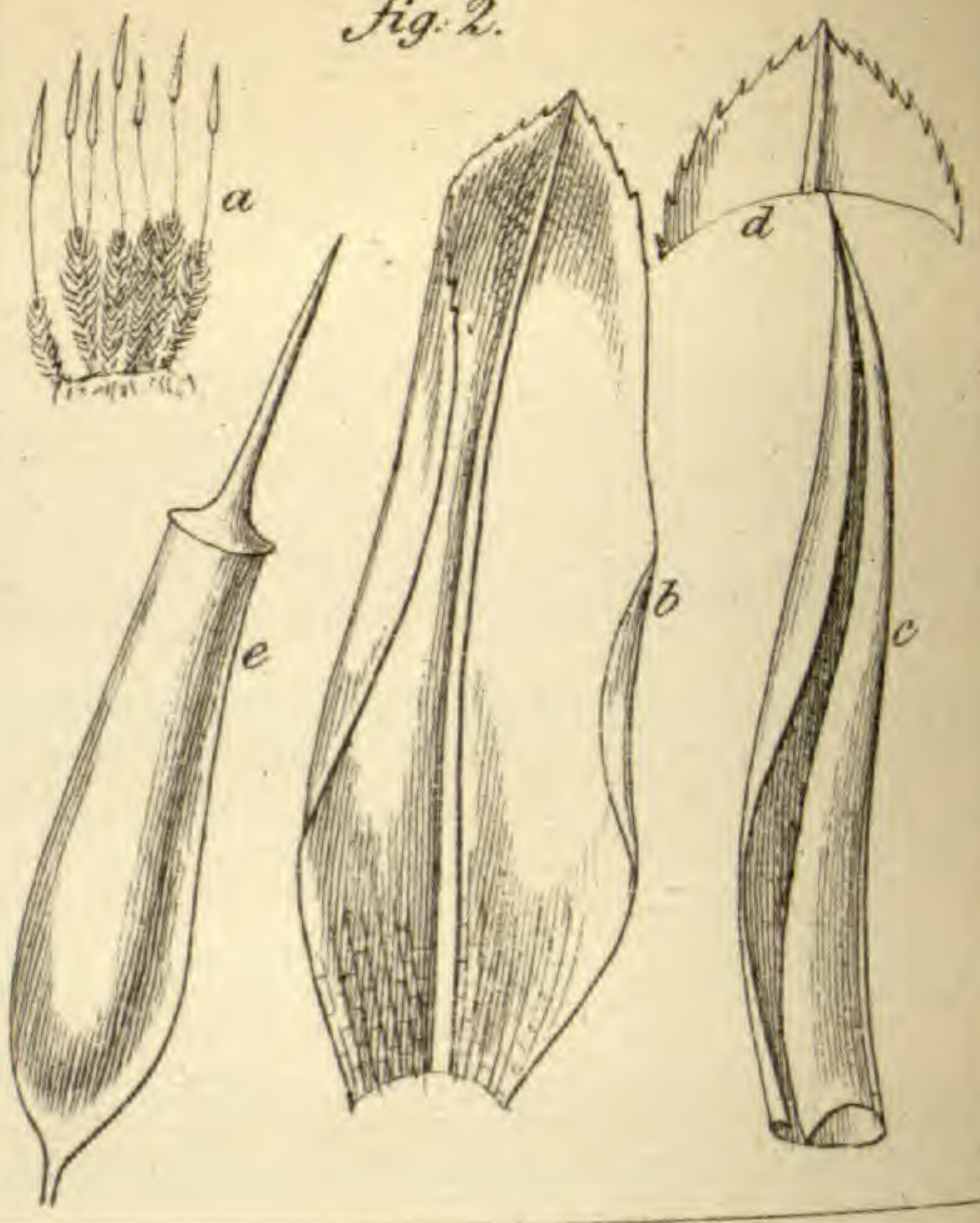


Fig. 3.

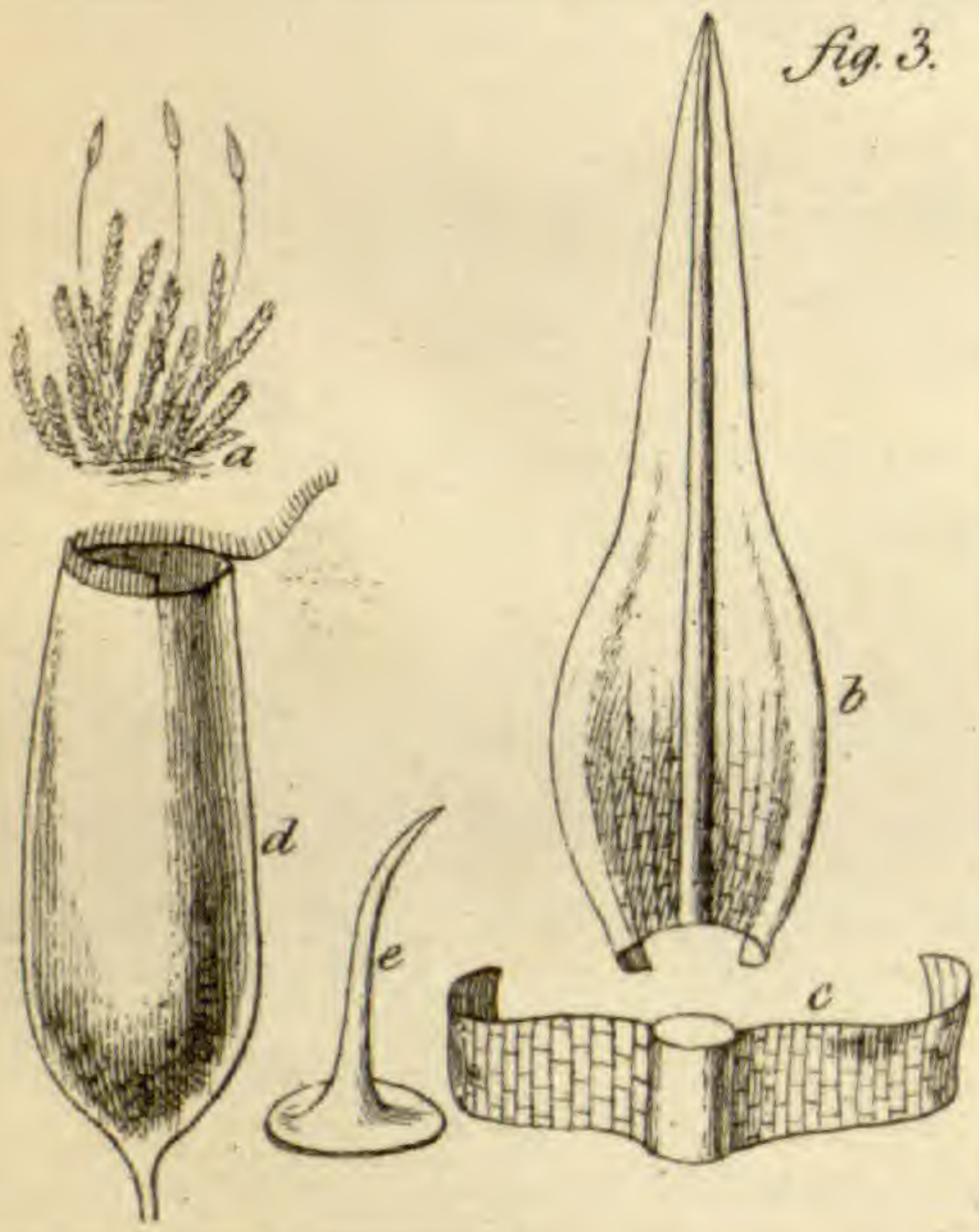


Fig. 4.

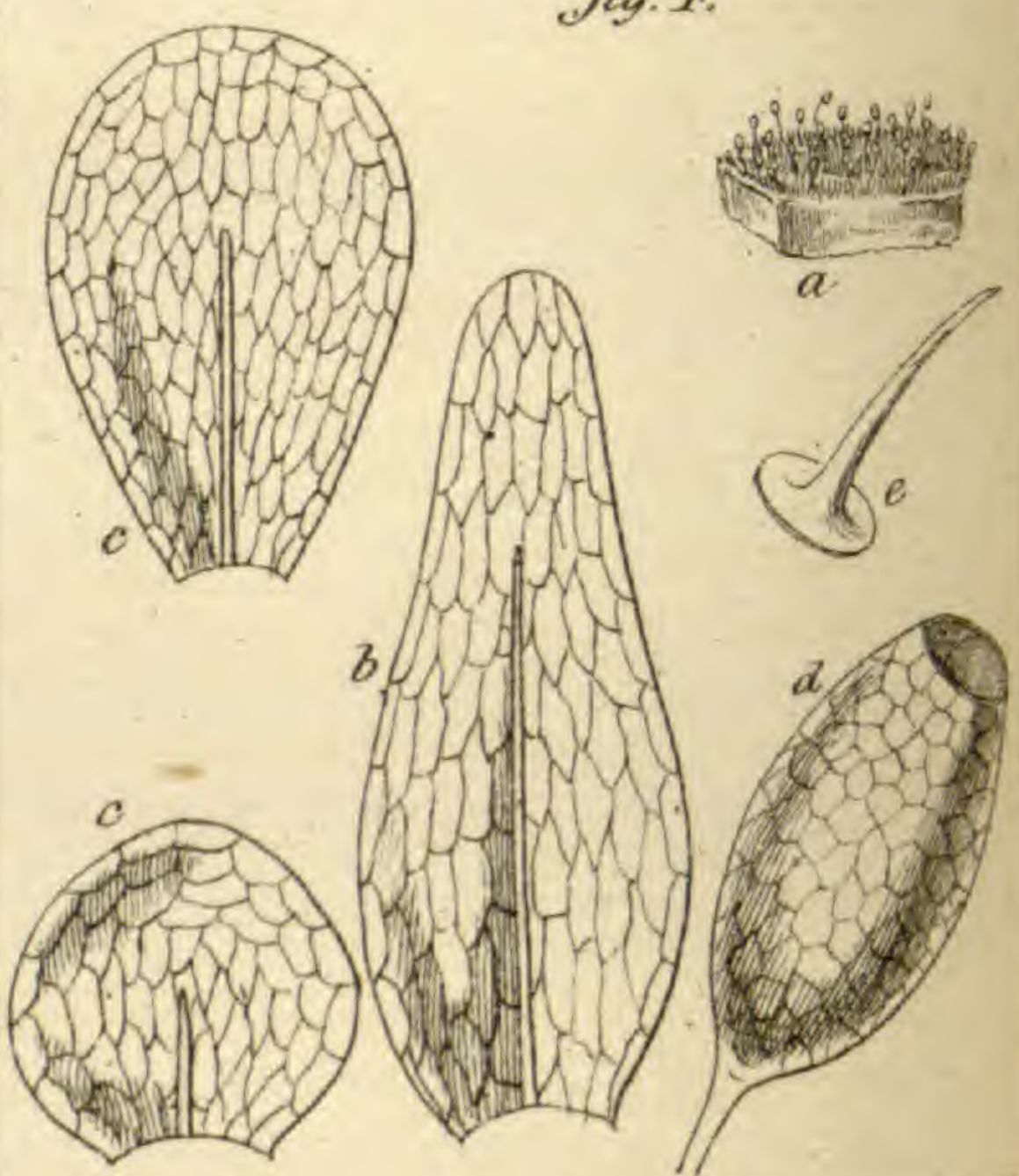
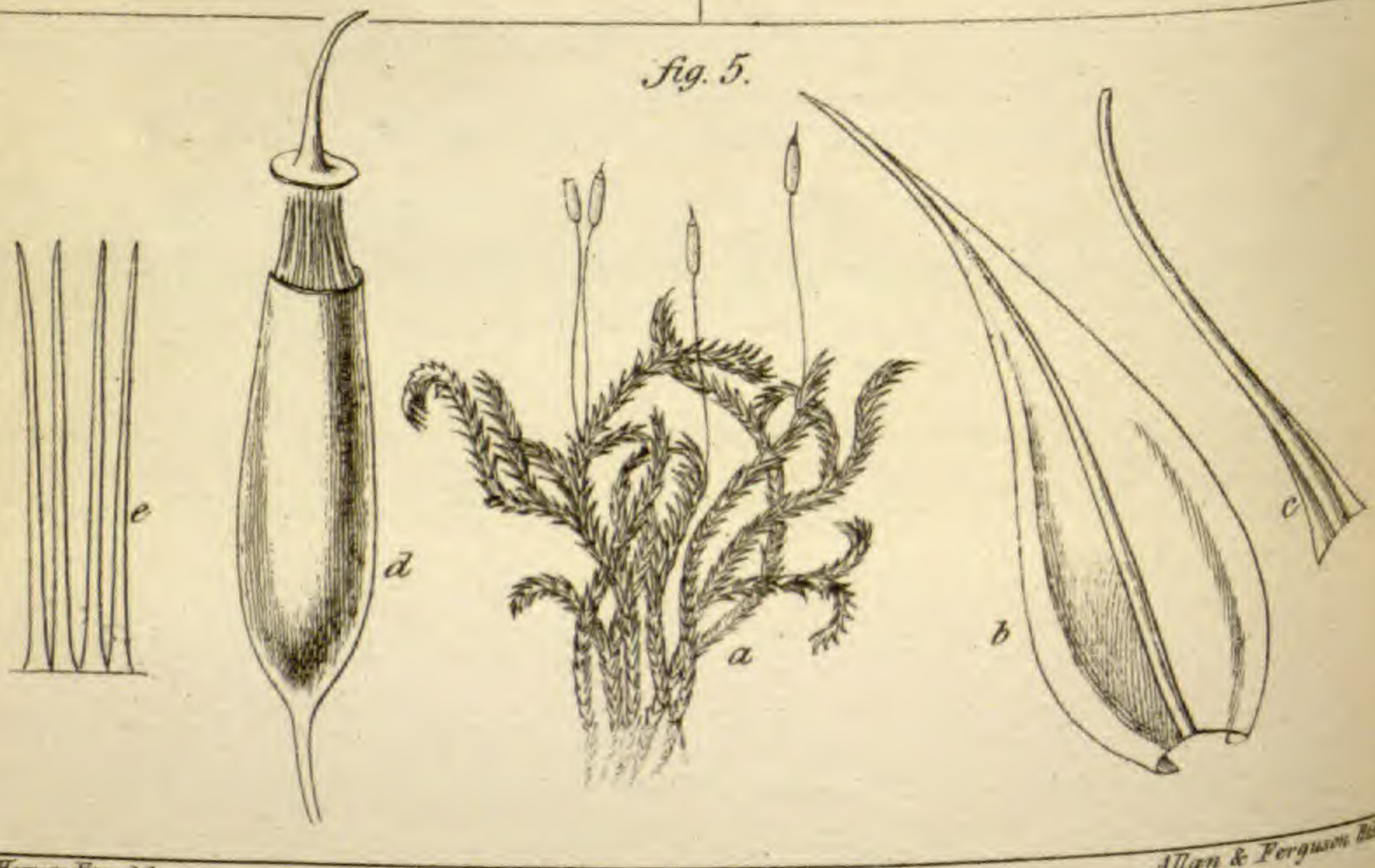


Fig. 5.



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TAB. XVII.

Musci Indici.*

Fig. 1. Gymnostomum *spathulatum.* Harv.
a. Plants; *nat. size.* *b.* leaves. *c.* point of leaf. *d.* capsule: —*magnified.*

Fig. 2. Gymnostomum *cylindricum.* Hook.
a. Plant; *nat. size.* *b.* upper leaf. *c.* lower do. *d.* point of leaf:—*magnified.*

Fig. 3. Gymnostomum *rufescens.* Hook.
a. Plant; *nat. size.* *b.* leaf. *c.* section of do., showing the recurved margin. *d.* capsule, with the annulus partly separated. *e.* operculum:—*magnified.*

Fig. 4. Gymnostomum *vernicosum.* Hook.
a. Plant; *nat. size.* *b.* leaf of the stem. *c.* leaves of the innovations. *d.* capsule. *e.* operculum:—*magnified.*

Fig. 5. Trichostomum *subsecundum.* *Hook. & Grev.*
a. Plants; *nat. size.* *b.* leaf. *c.* point of do. *d.* capsule, with the operculum removed. *e.* portion of the peristome:—*magnified.*

* The descriptions of these will be found in the 2d Vol. of the "Companion to the Botanical Magazine."

fig. 1

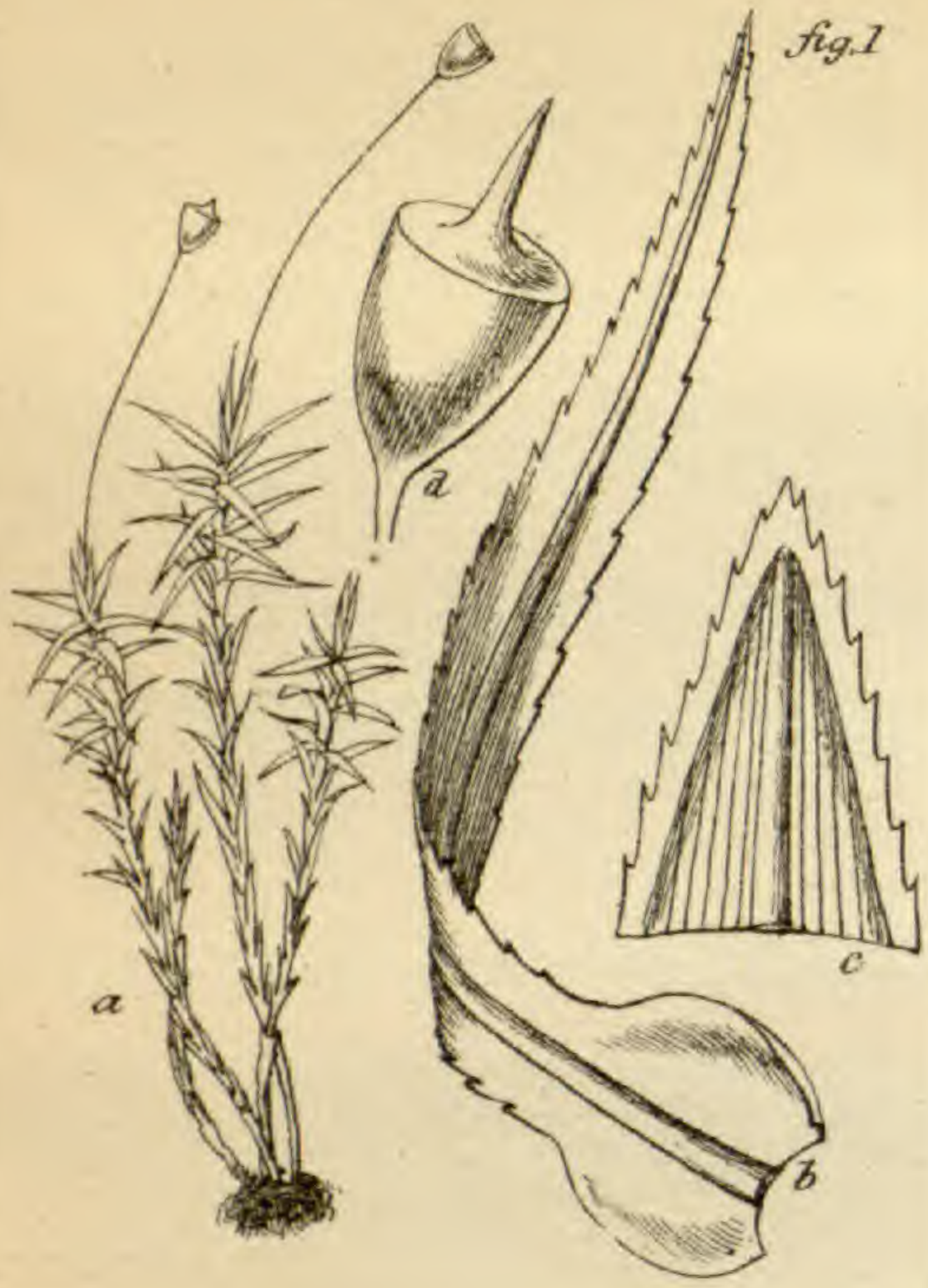


fig. 2

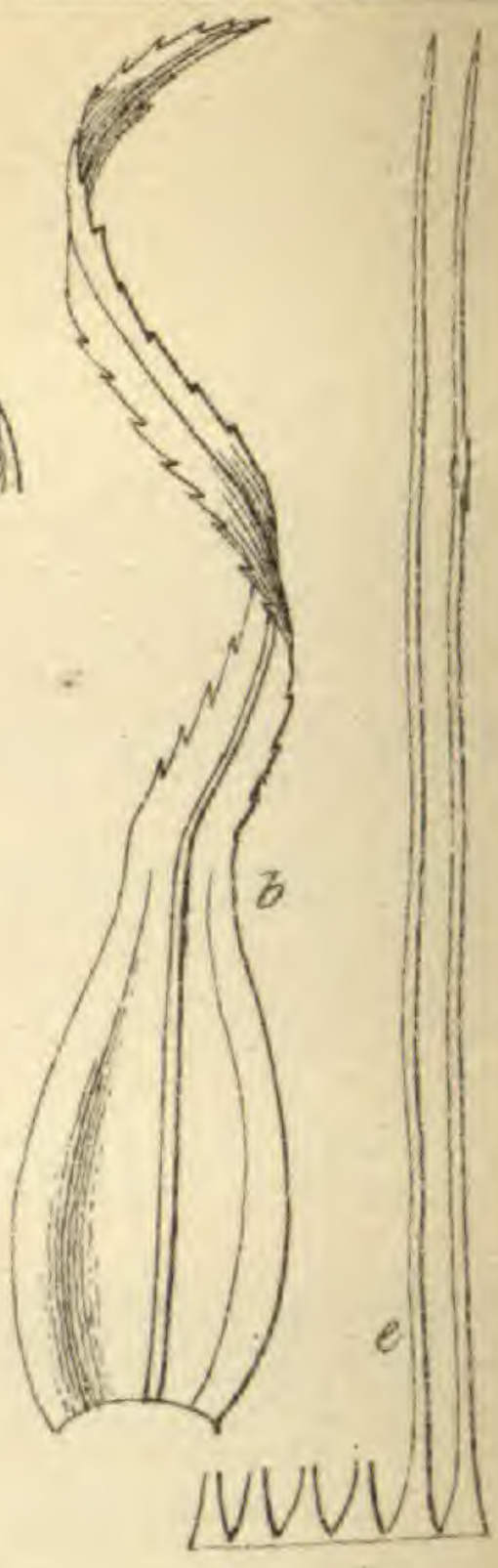


fig. 4

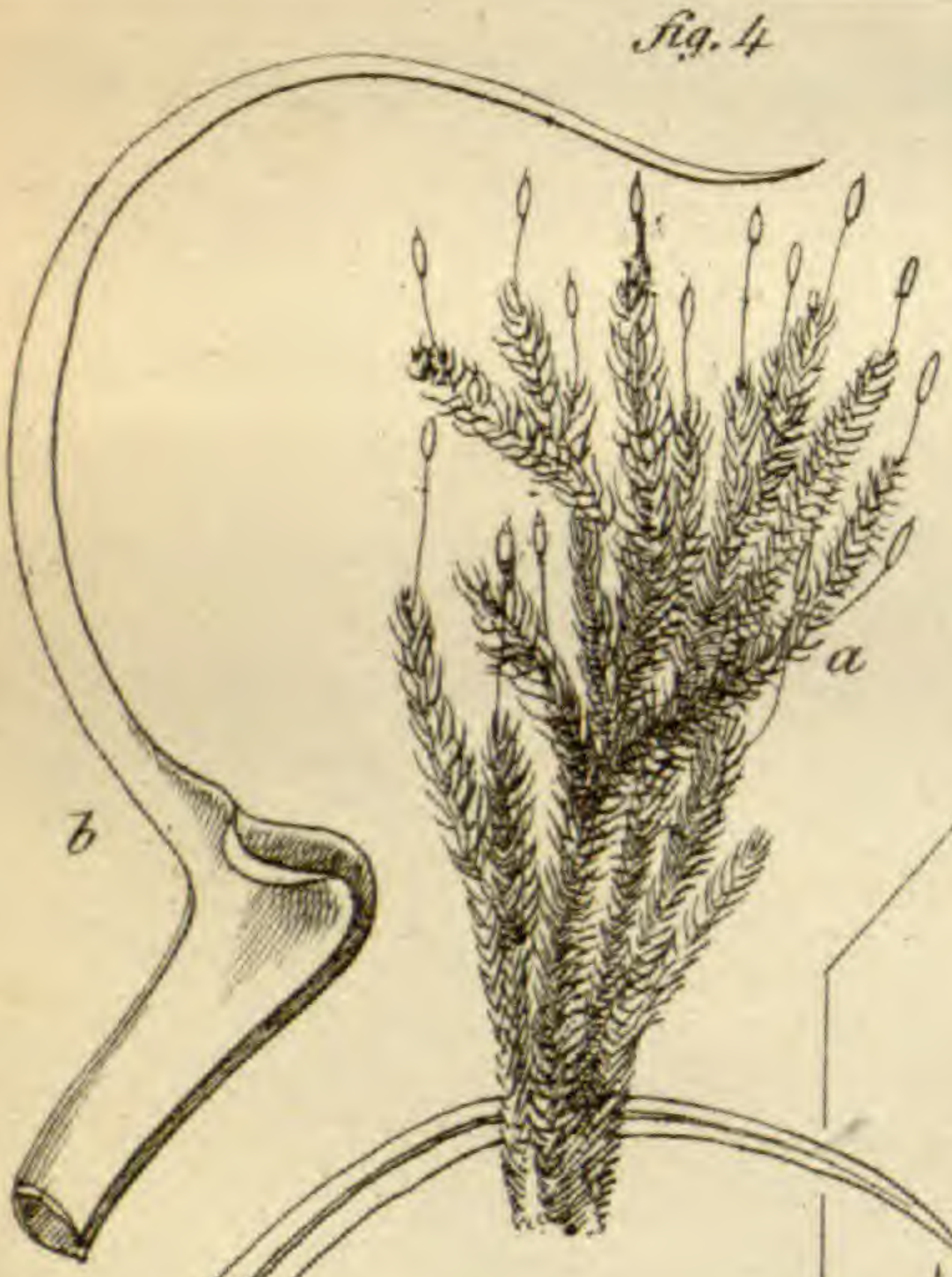


fig. 3

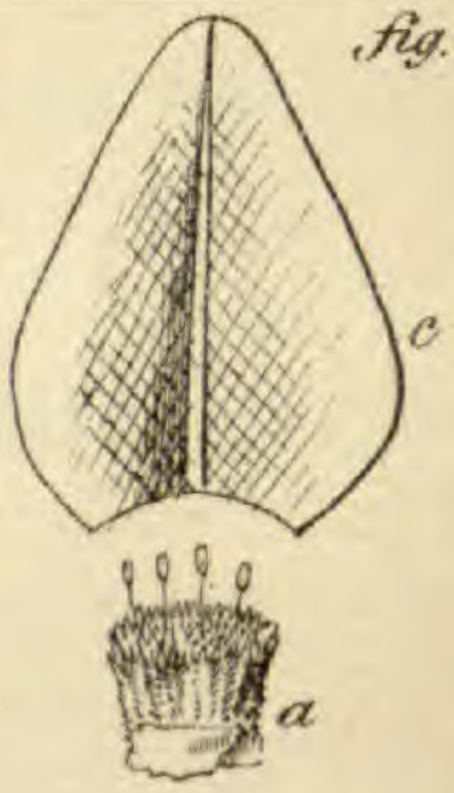
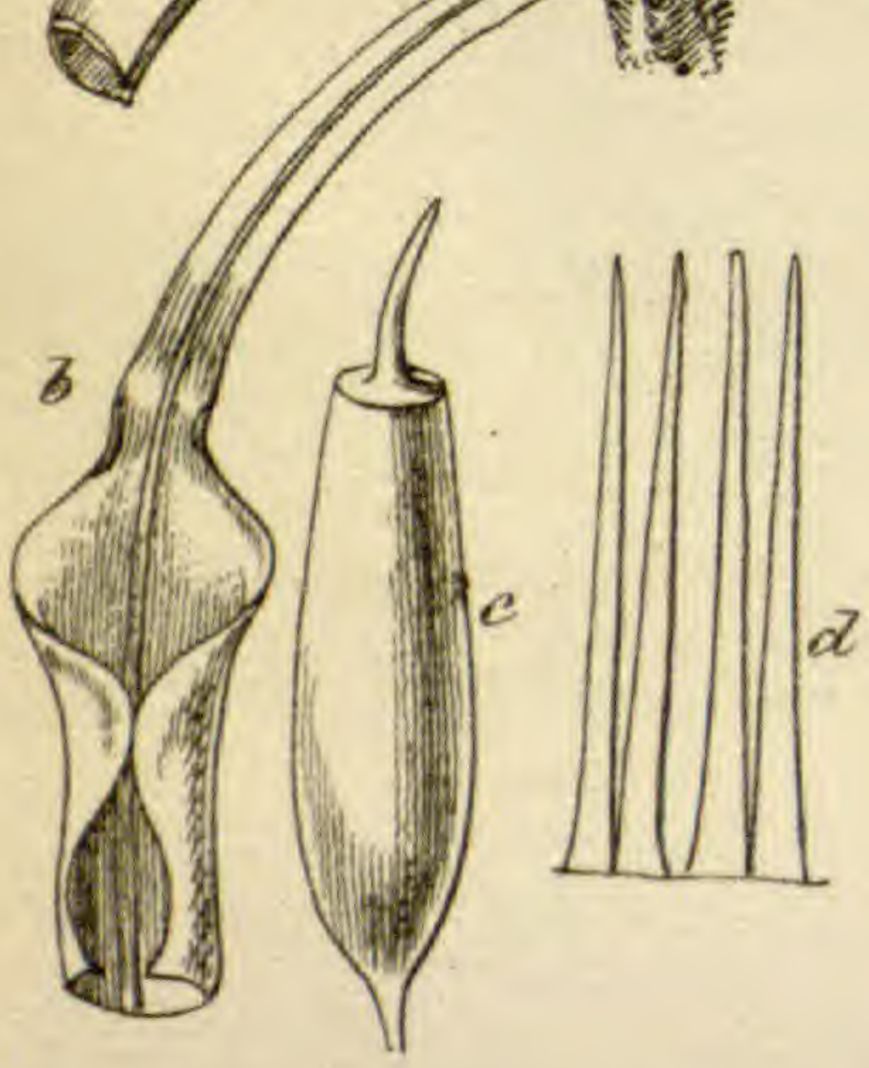
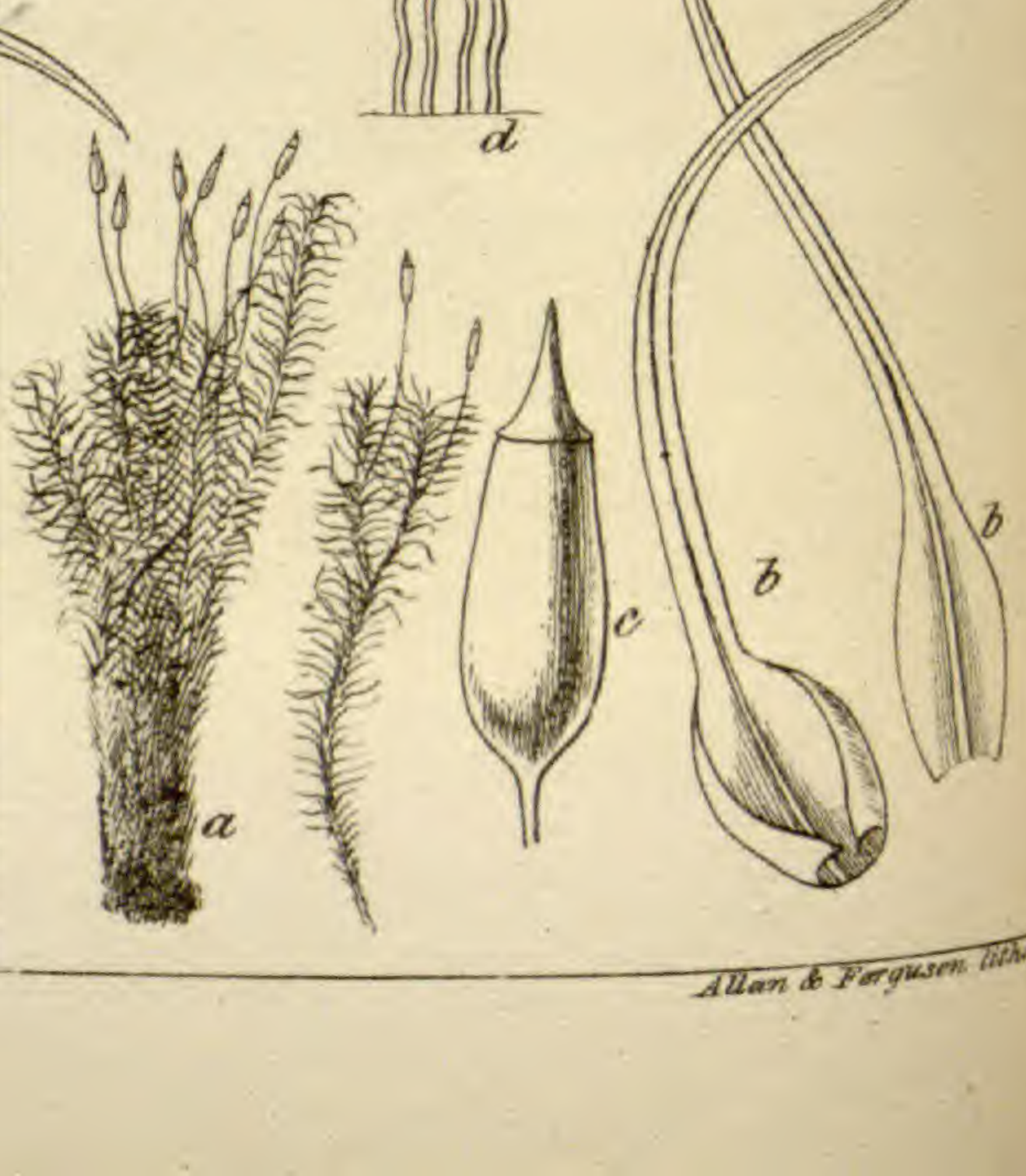


fig. 5.





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Allan & Ferguson lithog.

TAB. XVIII.

Musci Indici, *continued.*

Fig. 1. Polytrichum *patulum.* Harv.
a. Plant; *nat. size.* *b.* leaf. *c.* point of do. *d.* capsule:—*magnified.*

Fig. 2. Didymodon *Tortula.* Harv.
a. Plant; *nat. size.* *b.* leaf. *c.* capsule. *d.* occasional appearance of peristome. *e.* portion of peristome:—*magnified.*

Fig. 3. Weissia *flaccida.* Harv.
a. Plant; *nat. size.* *b.* lower leaf. *c.* upper leaf. *d.* capsule. *e.* portion of peristome:—*magnified.*

Fig. 4. Didymodon *vaginatum.* Hook.
a. Plant; *nat. size.* *b. b.* leaves. *c.* capsule. *d.* portion of peristome:—*magnified.*

Fig. 5. Didymodon *cirrhifolium.* Harv.
a. Plants; *nat. size.* *b. b.* leaves. *c.* capsule. *d.* portion of peristome:—*magnified.*

fig. 1.

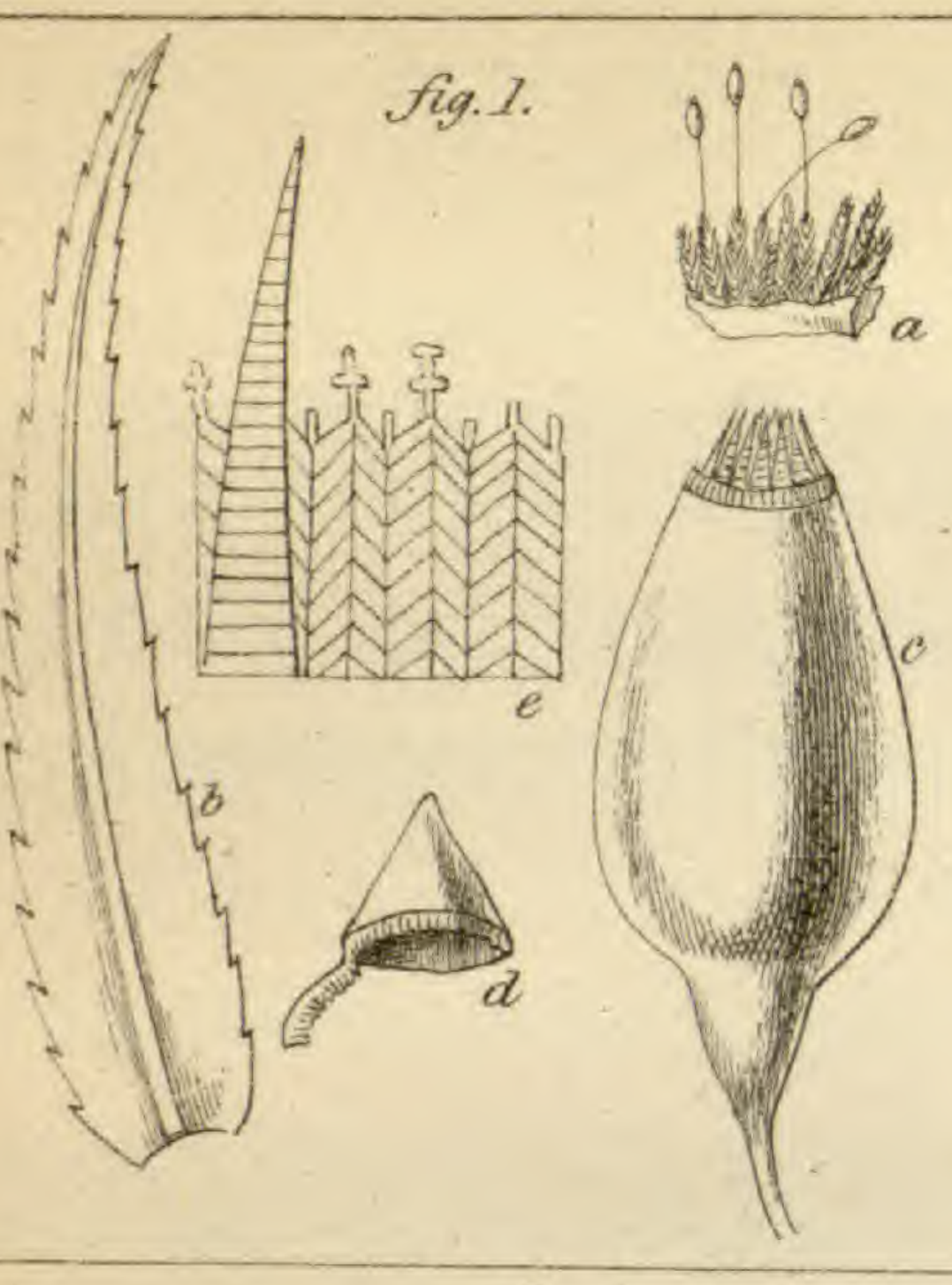


fig. 2.

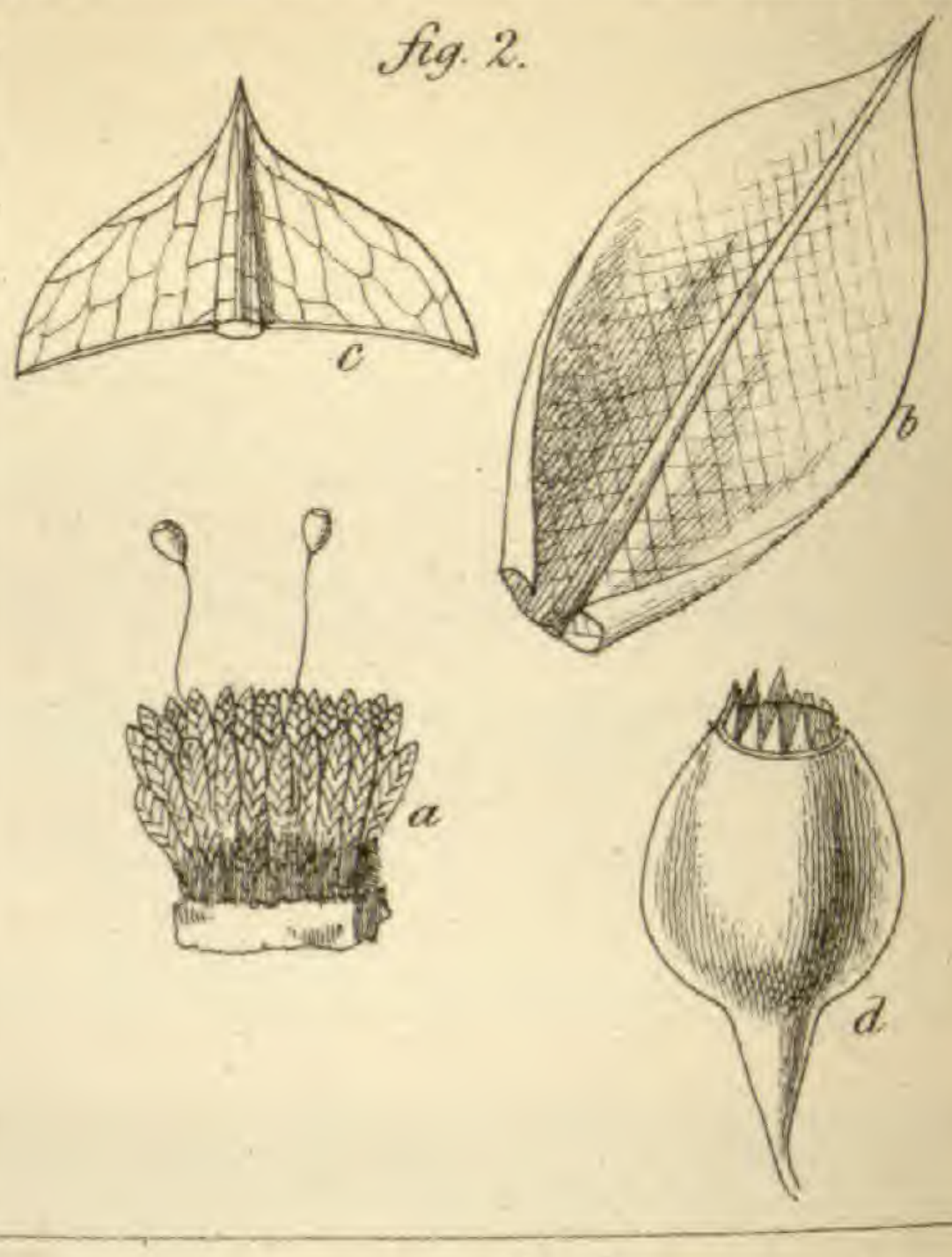


fig. 3.

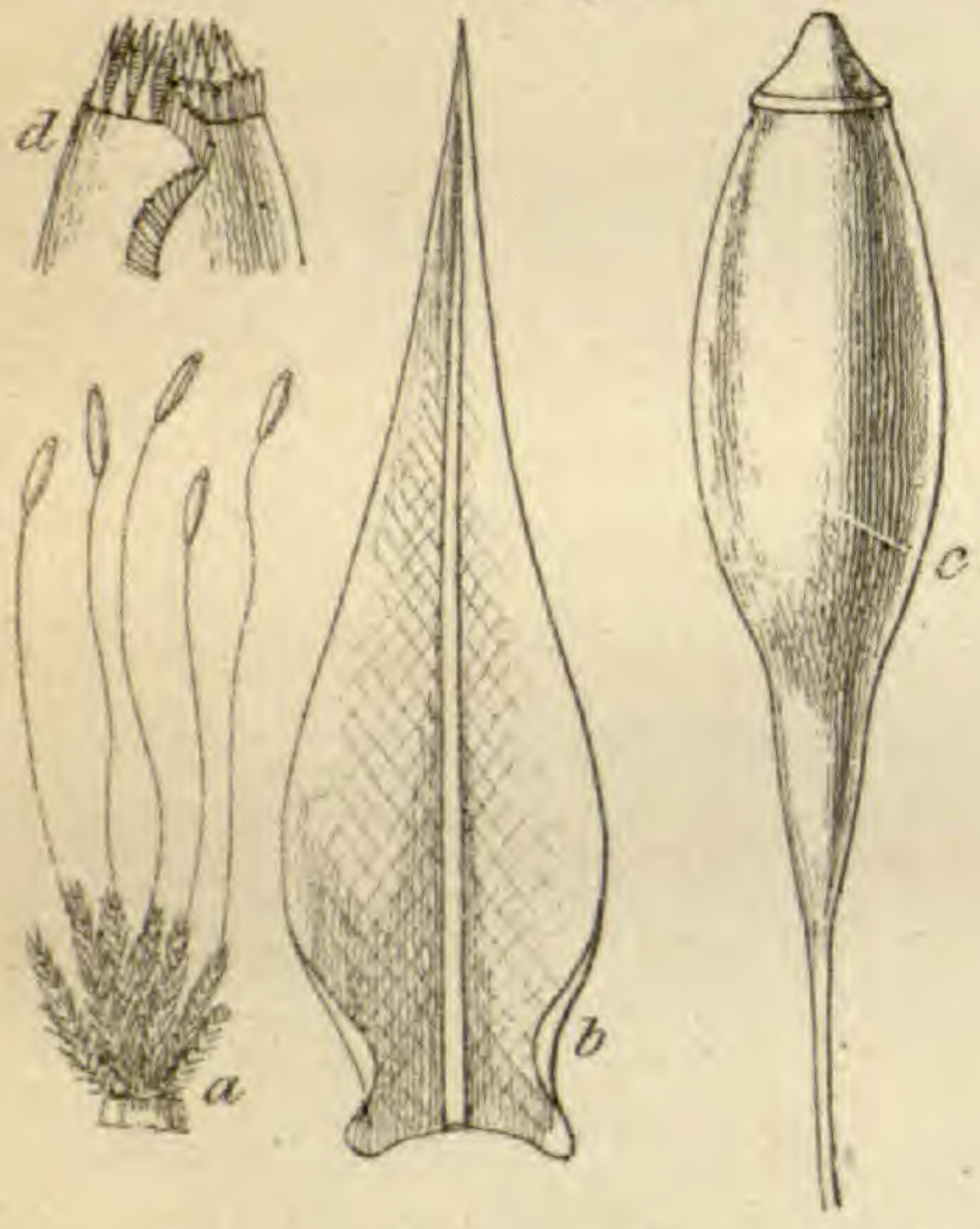


fig. 4.

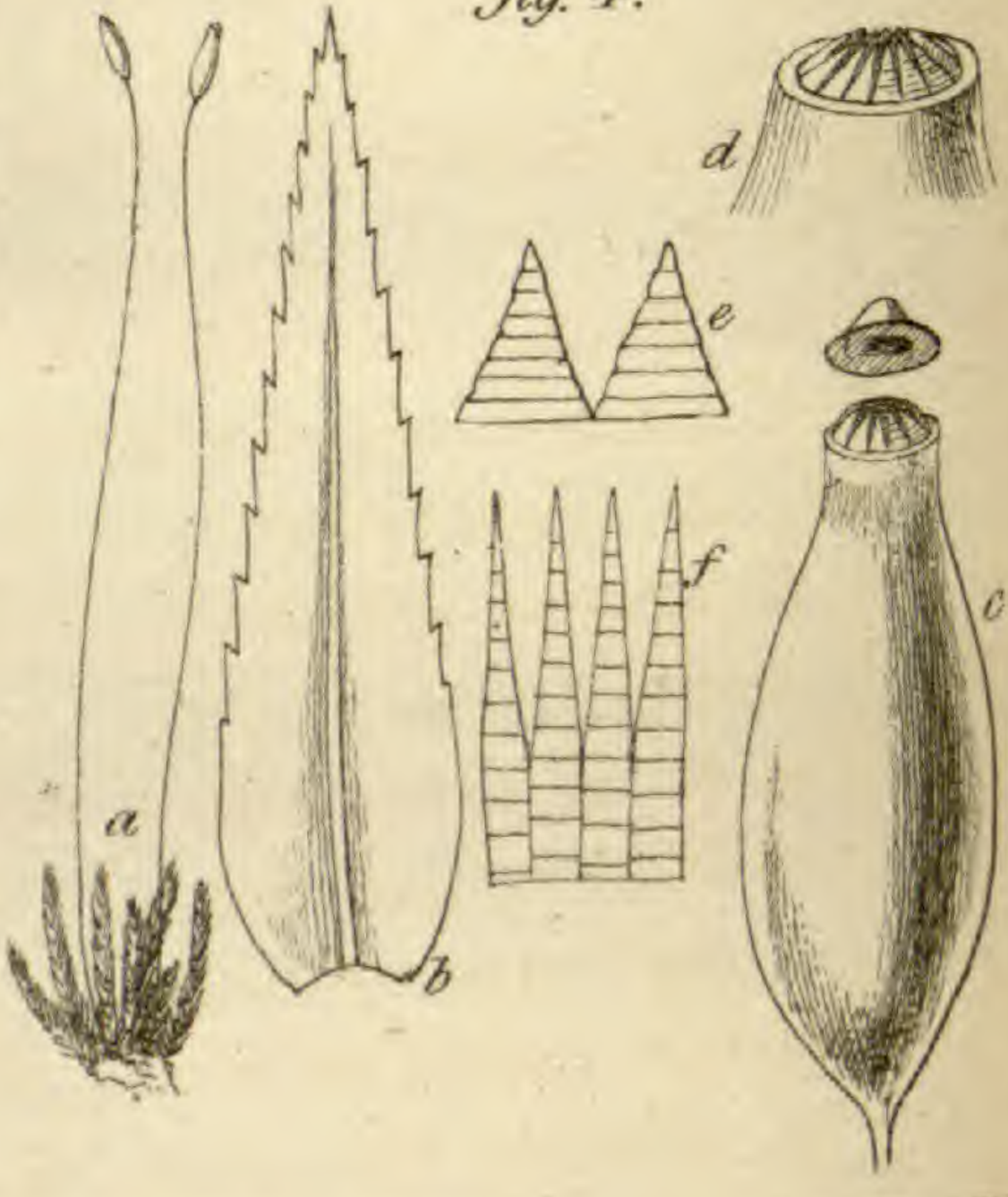


fig. 5.

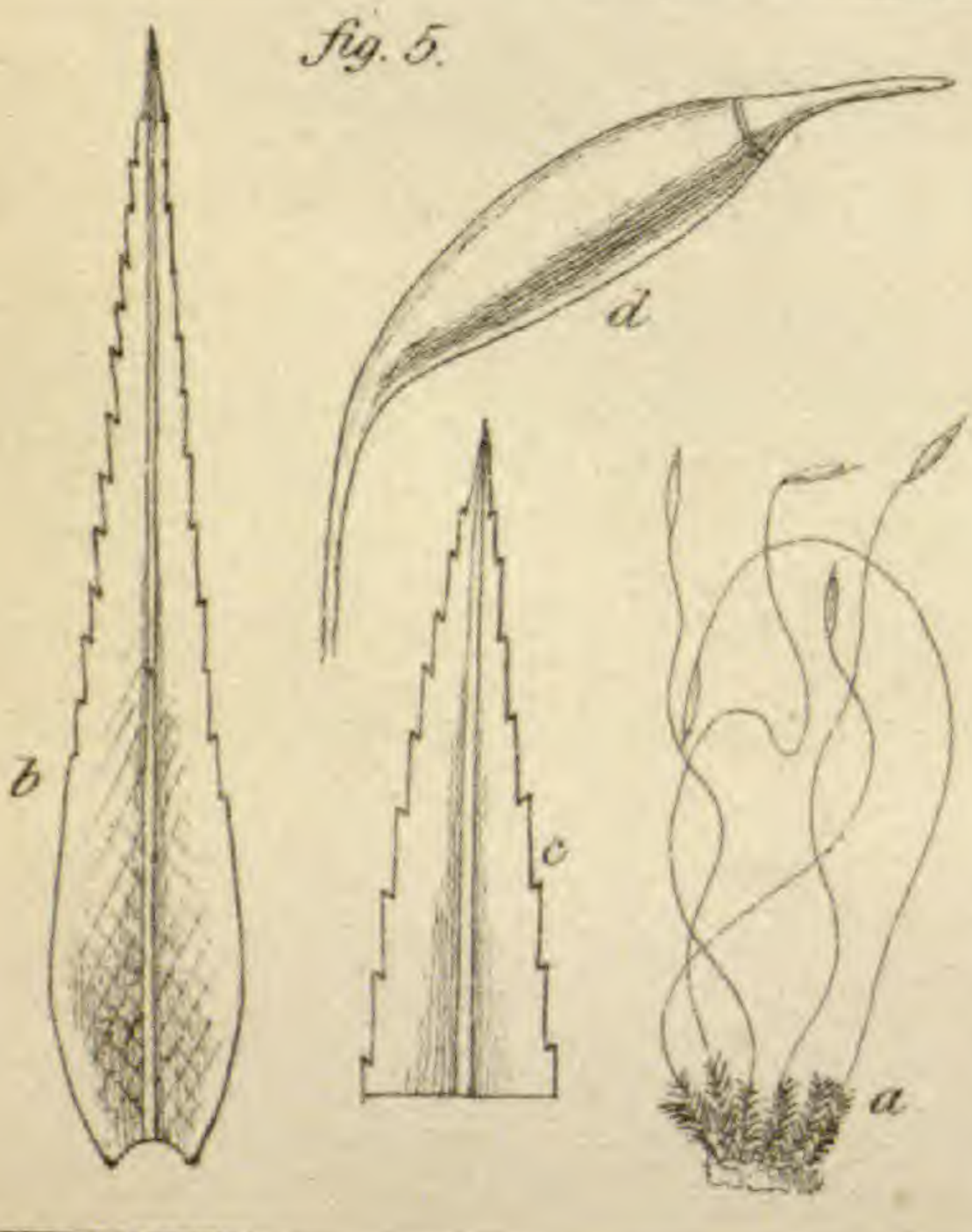
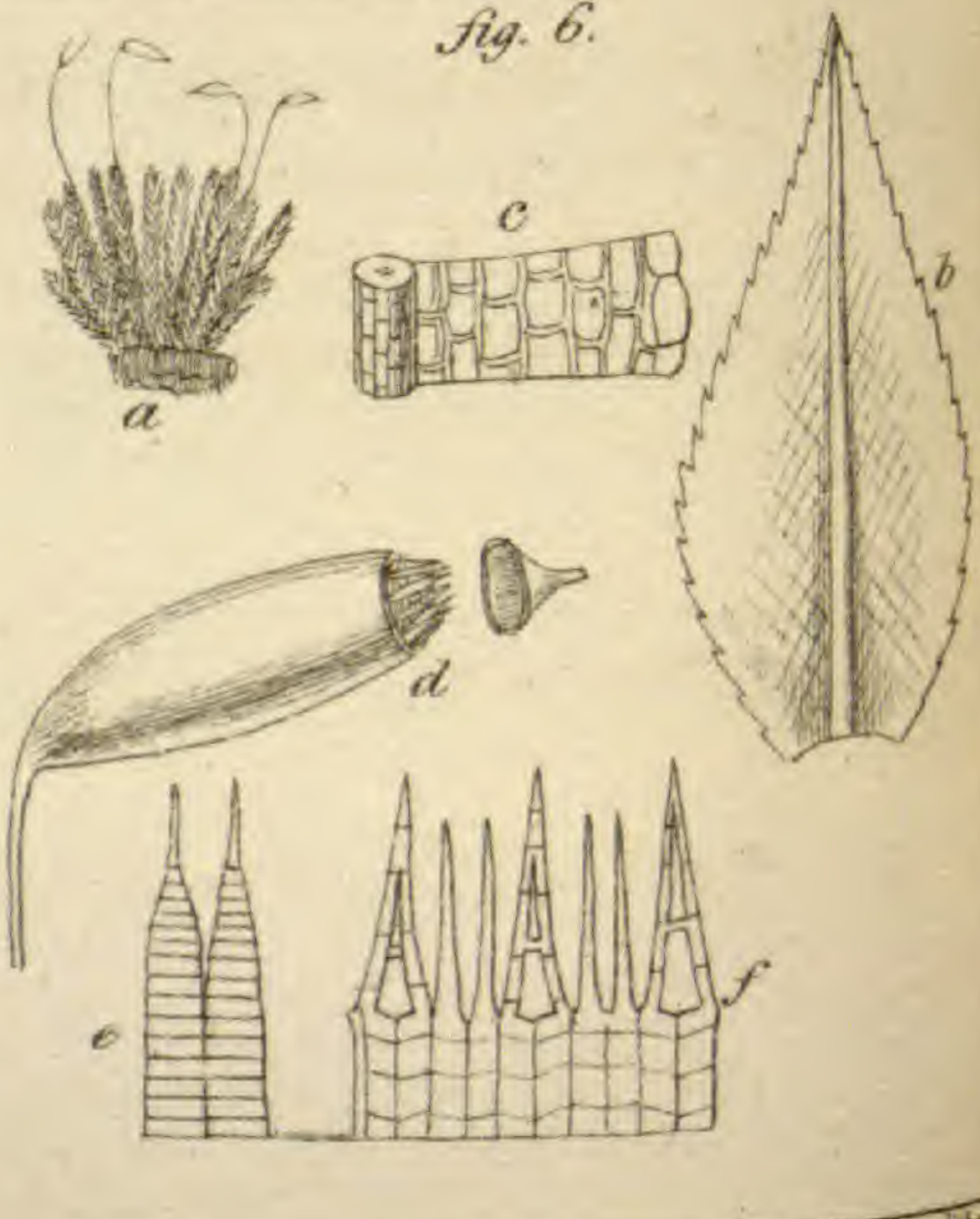


fig. 6.



TAB. XIX.

Musci Indici, *continued.*

Fig. 1. Brachymenium *Weissia.* Hook.
a. Plants; *nat. size.* *b.* leaf. *c.* capsule. *d.* operculum, with the annulus. *e.* portion of the peristome:—*magnified.*

Fig. 2. Brachymenium *splachnoides.* Harv.
a. Plants; *nat. size.* *b.* leaf. *c.* apex, showing the cellules. *d.* capsule, with imperfect peristome:—*magnified.*

Fig. 3. Brachymenium *acuminatum.* Harv.
a. Plants; *nat. size.* *b.* leaf. *c.* capsule. *d.* peristome and annulus:—*magnified.*

Fig. 4. Brachymenium *microstomum.* Harv.
a. Plants; *nat. size.* *b.* leaf. *c.* capsule. *d.* mouth of ditto. *e. f.* portions of outer and inner peristome:—*magnified.*

Fig. 5. Pohlia *flexuosa.* Hook.
a. Plants; *nat. size.* *b.* leaf. *c.* point of do. *d.* capsule (unripe):—*magnified.*

Fig. 6. Bryum *nitens.* Hook.
a. Plants; *nat. size.* *b.* leaf. *c.* portion of a leaf, to show the cellules. *d.* capsule. *e. f.* portions of the outer and inner peristome:—*magnified.*

fig. 1.

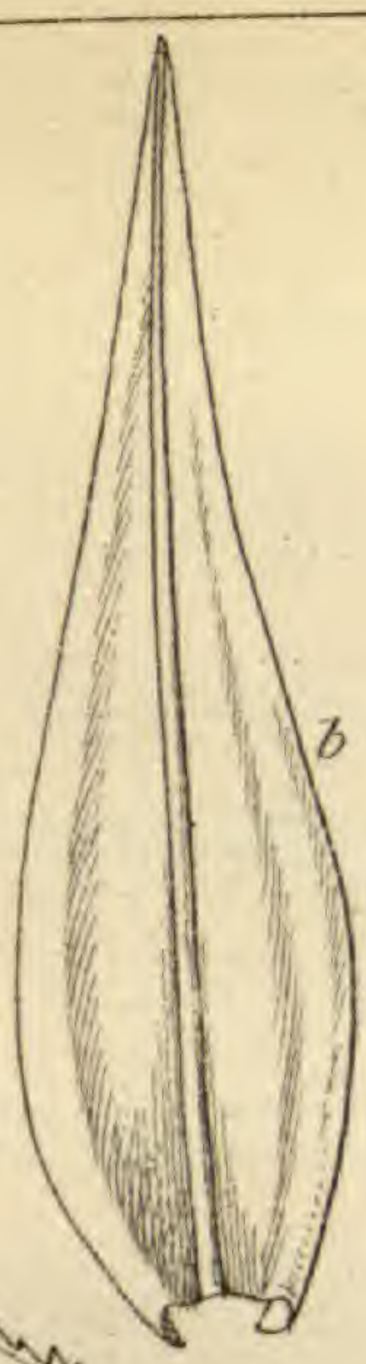


fig. 2.

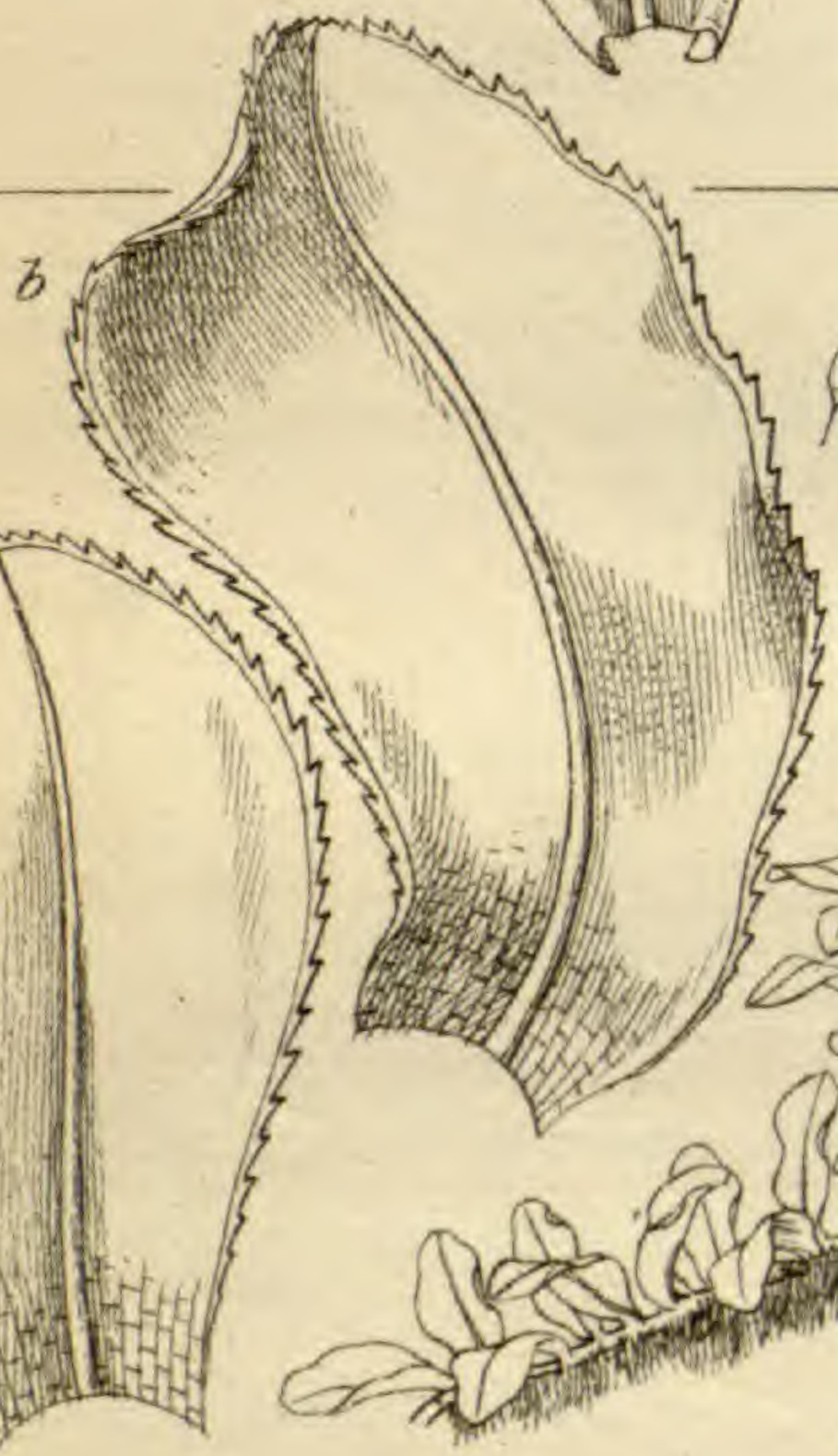


fig. 3.

fig. 4.

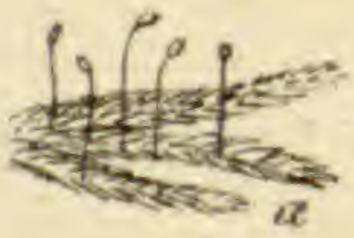


fig. 5.

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TAB. XX.

Musci Indici, *continued.*

Fig. 1. Bryum *teretiusculum.* Hook.
a. Plants; *nat. size.* *b.* leaf. *c.* capsule:—*magnified.*

Fig. 2. Mnium *ramosum.* Hook.
a. Plant; *nat. size.* *b.* leaf. *c.* apex of do. *d.* capsule:—*magnified.*

Fig. 3. Mnium *rhynchophorum.* Hook.
a. Plant; *nat. size.* *b. b.* leaves. *c.* capsule and operculum:—*magnified.*

Fig. 4. Leskea? *curvirostris.* Harv.
a. Plants; *nat. size.* *b.* leaf. *c.* perichætial leaf. *d.* capsule. *e.* peristome:—*magnified.*

Fig. 5. Hookeria *prostrata.* Harv.
a. Plant; *nat. size.* *b.* branch, *magnified.* *c. c.* leaf, and portion of do., to show the cellules. *d.* summit of the capsule with operculum. *e. f.* outer and inner peristome:—*magnified.*

Fig. 1

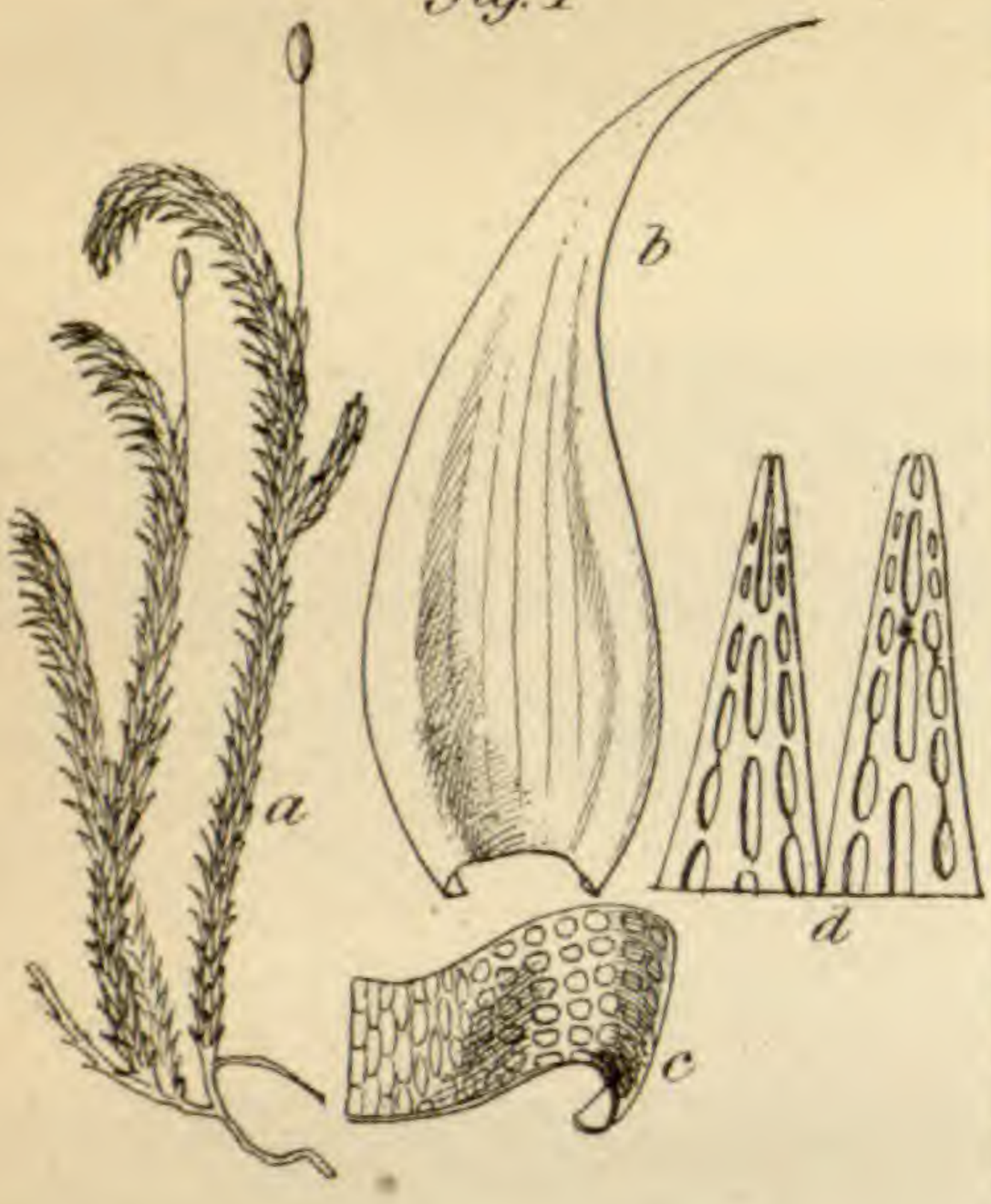

Fig. 2

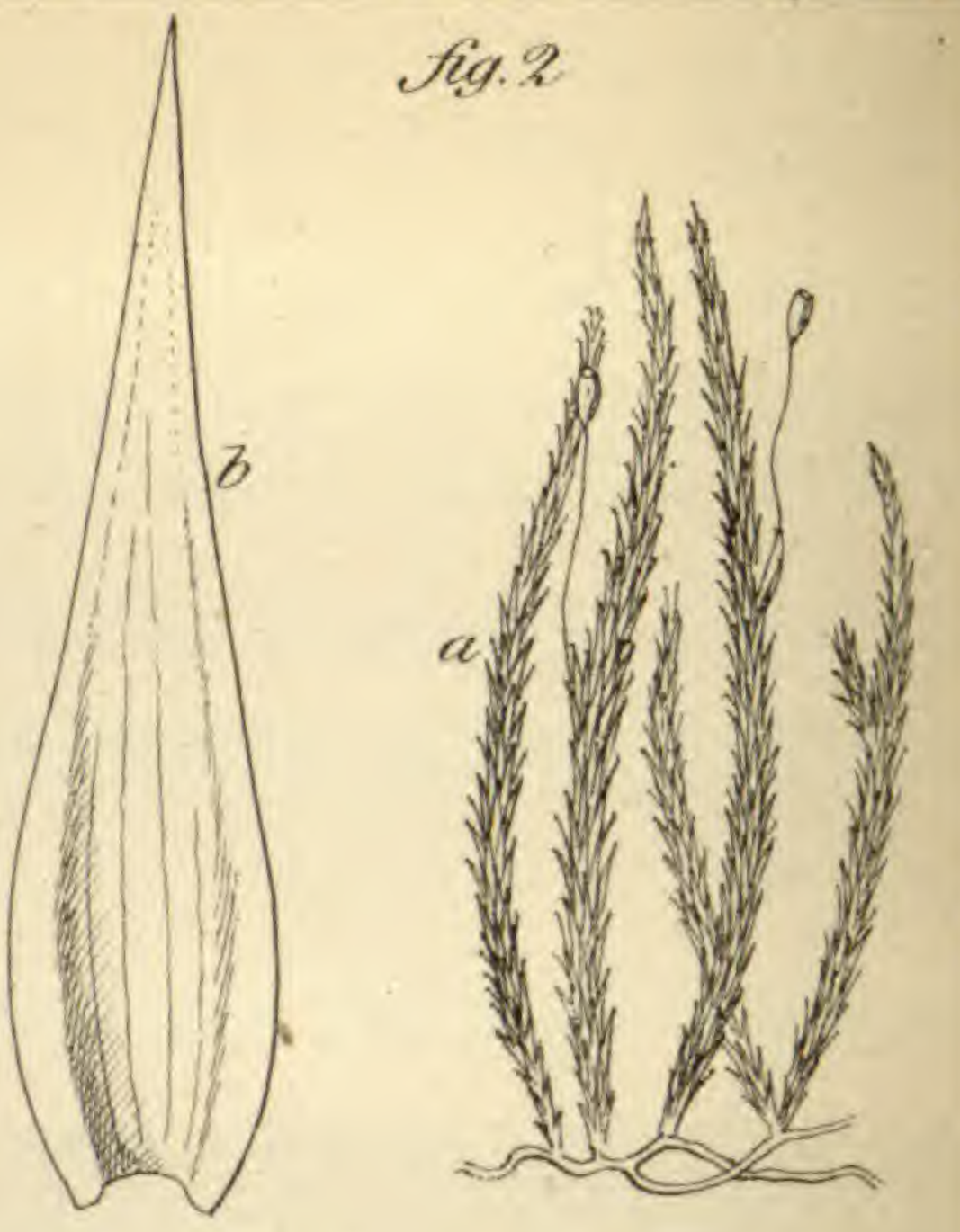

Fig. 3

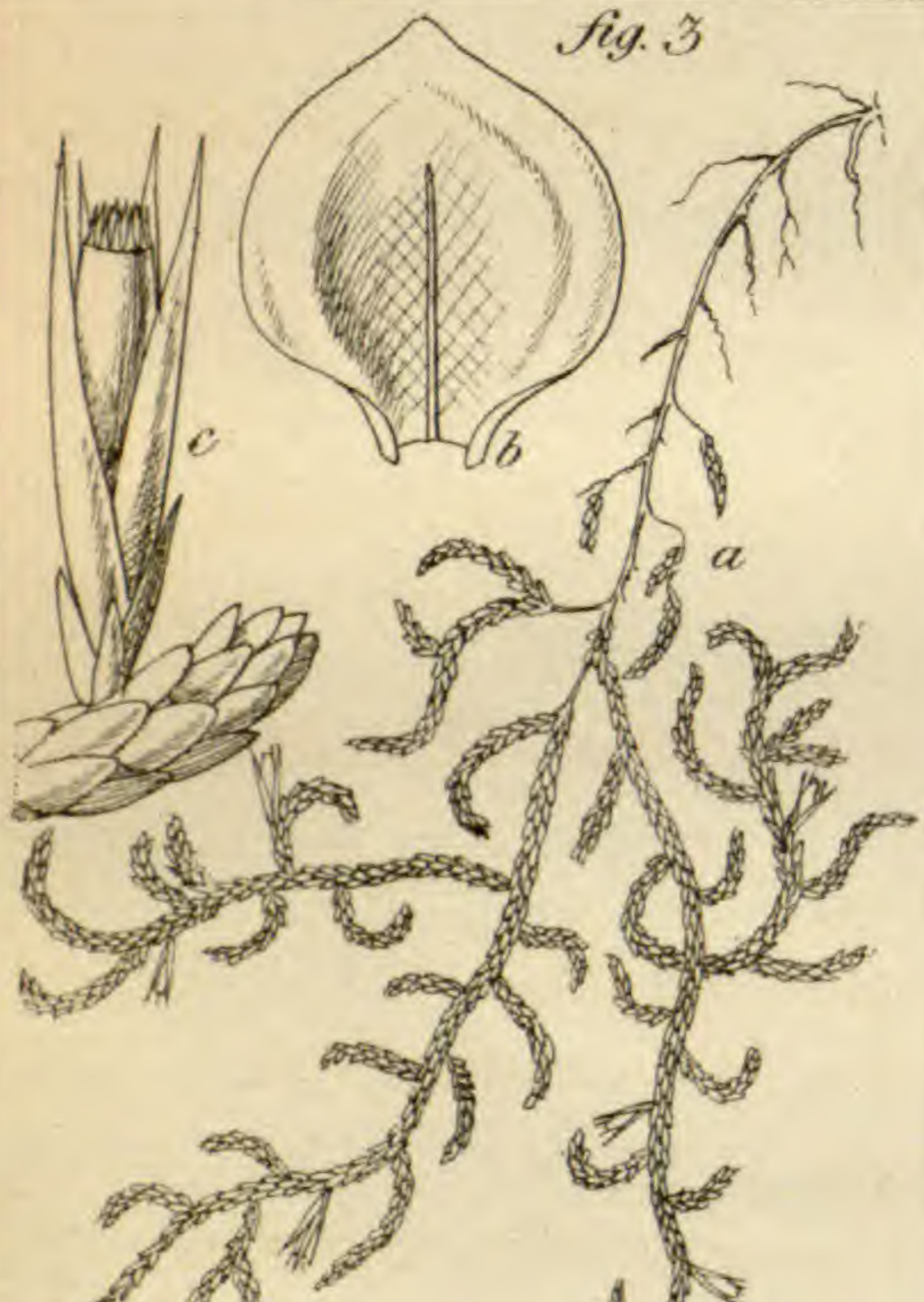

Fig. 4

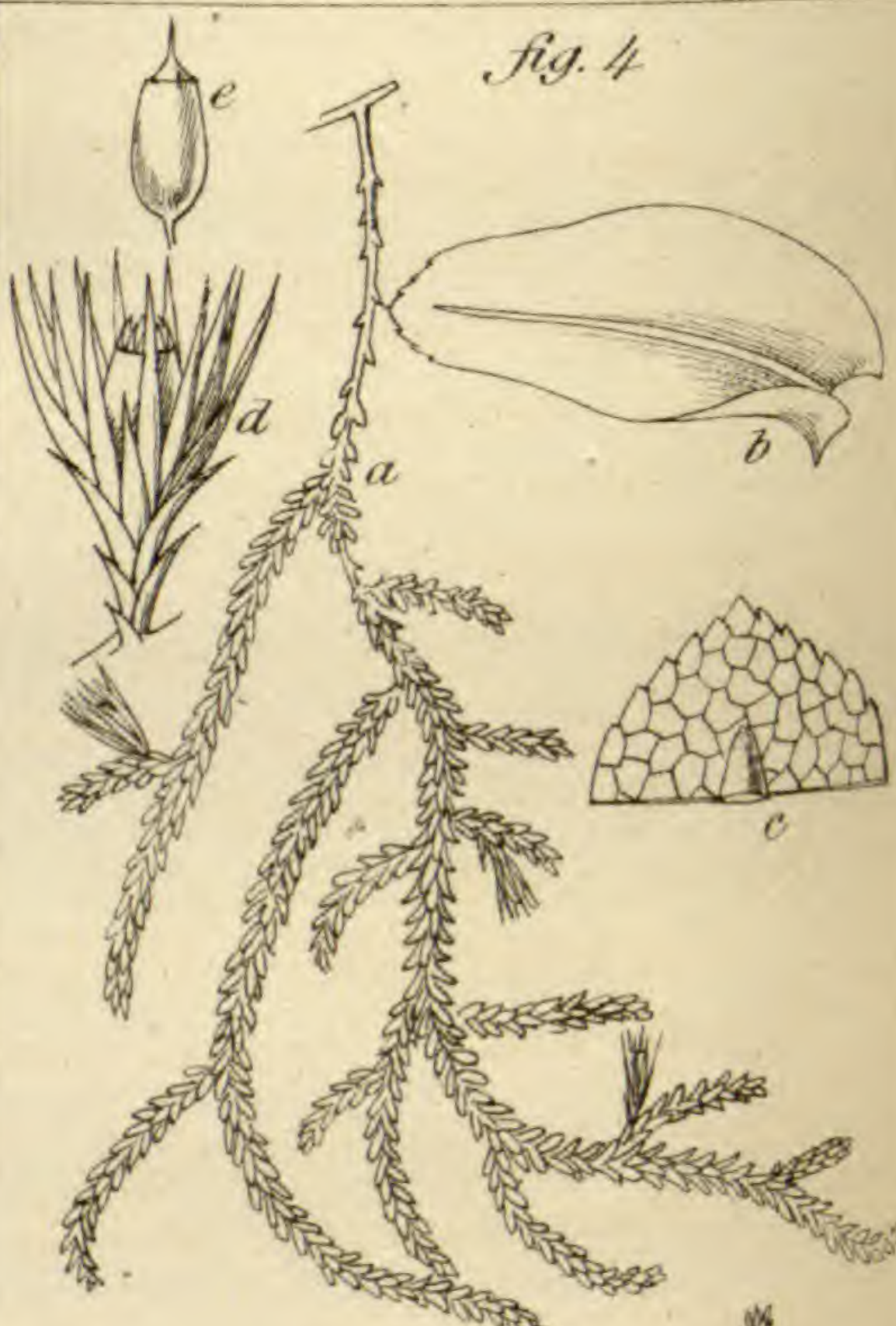

Fig. 5

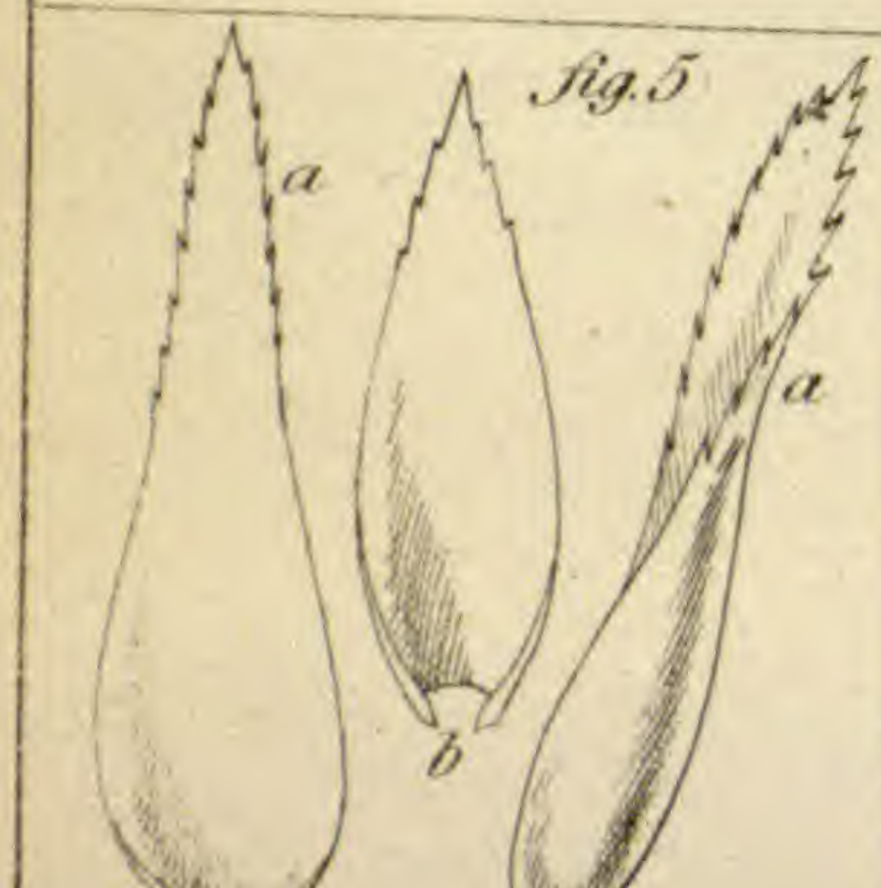

Fig. 6.

Fig. 7

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TAB. XXI.

Musci Indici, *continued.*

Fig. 1. Sclerodontium *secundum*. Harv.
a. Plant; *nat. size*. *b*. leaf. *c*. portion of do. *d*. portion of the peristome :—*magnified*.

Fig. 2. Sclerodontium *strictum*. Harv.
a. Plant; *nat. size*. *b*. leaf :—*magnified*.

Fig. 3. Neckera *flexuosa*. Harv.
a. Plant; *nat. size*. *b*. leaf. *c*. capsule and perichætium :—*magnified*.

Fig. 4. Neckera *fimbriata*. Harv.
a. Plant; *nat. size*. *b*. leaf. *c*. point of do. *d*. perichætium. *e*. capsule :—*magnified*.

Fig. 5. Neckera *lancifolia*. Harv.
a. *a*. upper leaves. *b*. lower leaf :—*magnified*.

Fig. 6. Leaf of Neckera *crenulata*. Harv. :—*magnified*.

Fig. 7. Neckera *subseriata*. Hook.
a. Plant; *nat. size*. *b*. leaf. *c*. point of do. :—*magnified*.

Fig. 1

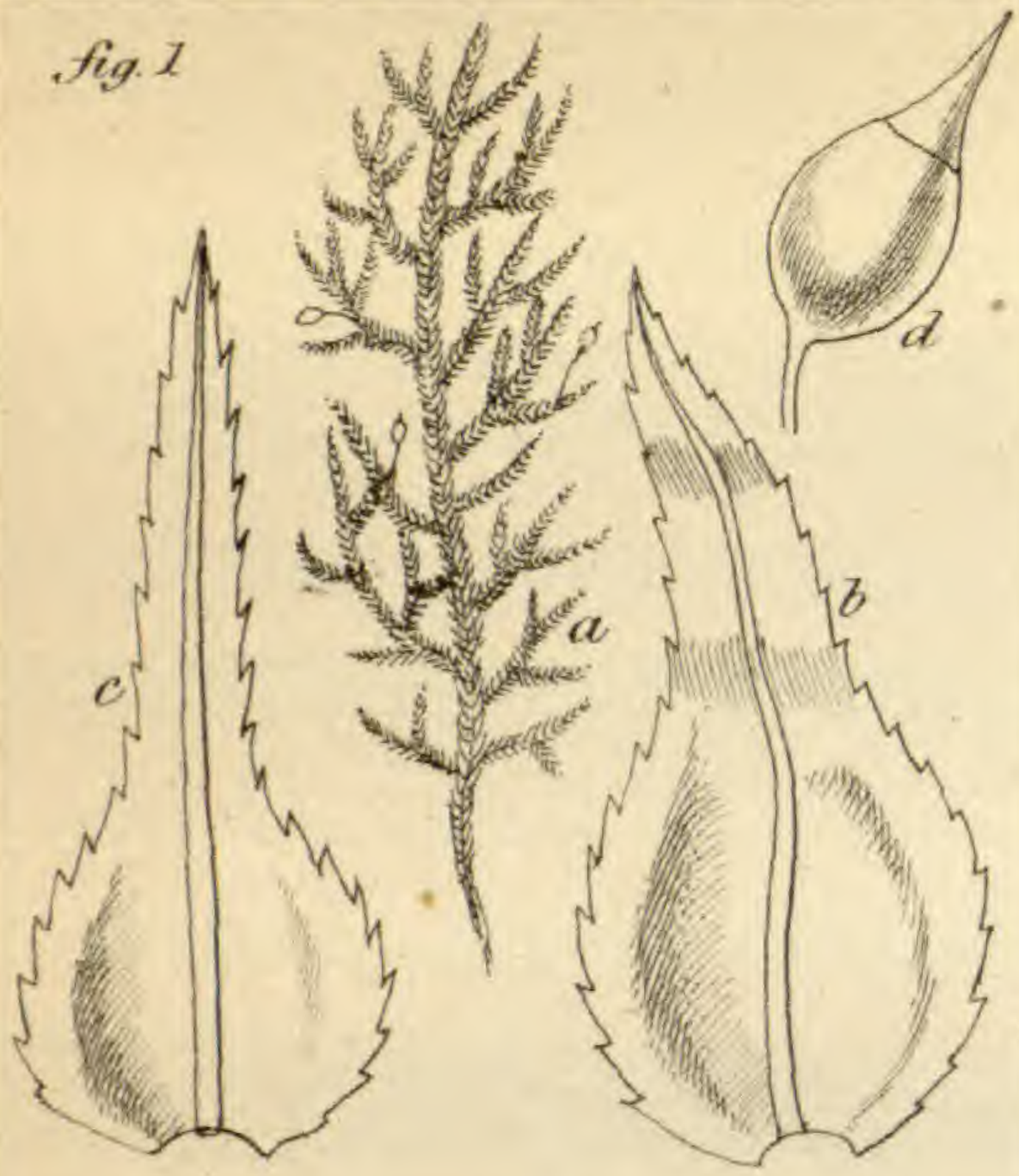


Fig. 2

Fig. 3

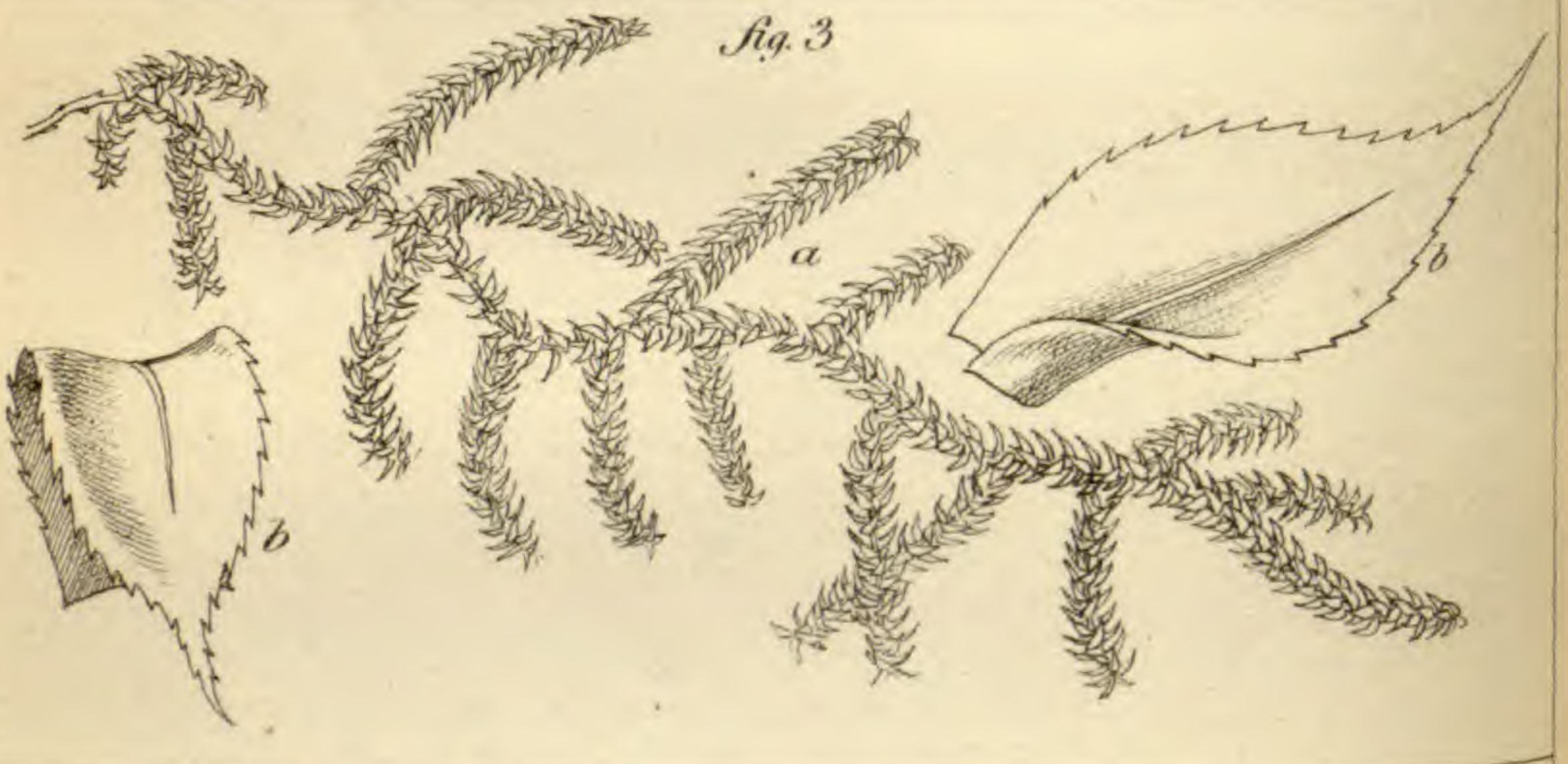


Fig. 4

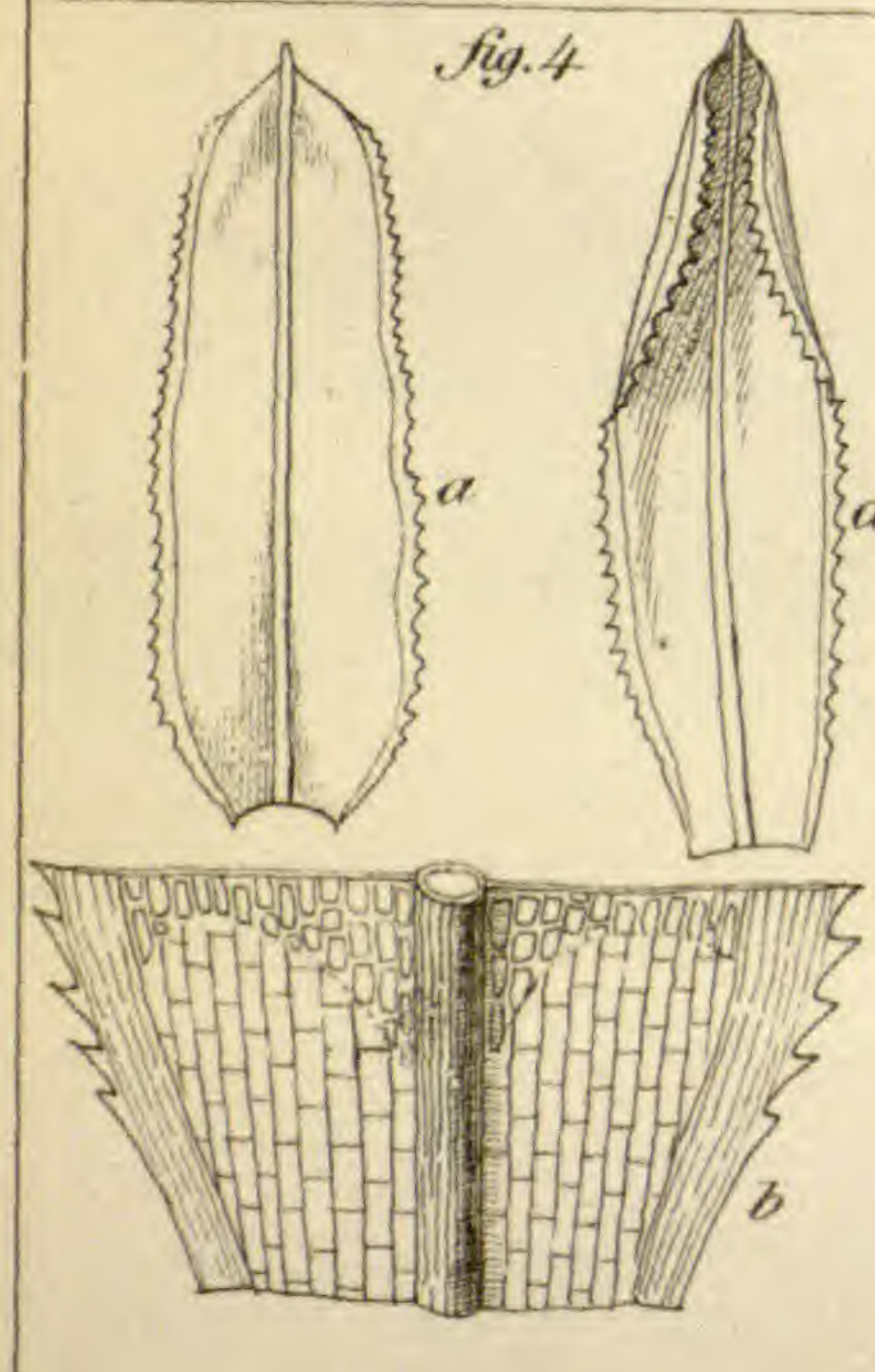
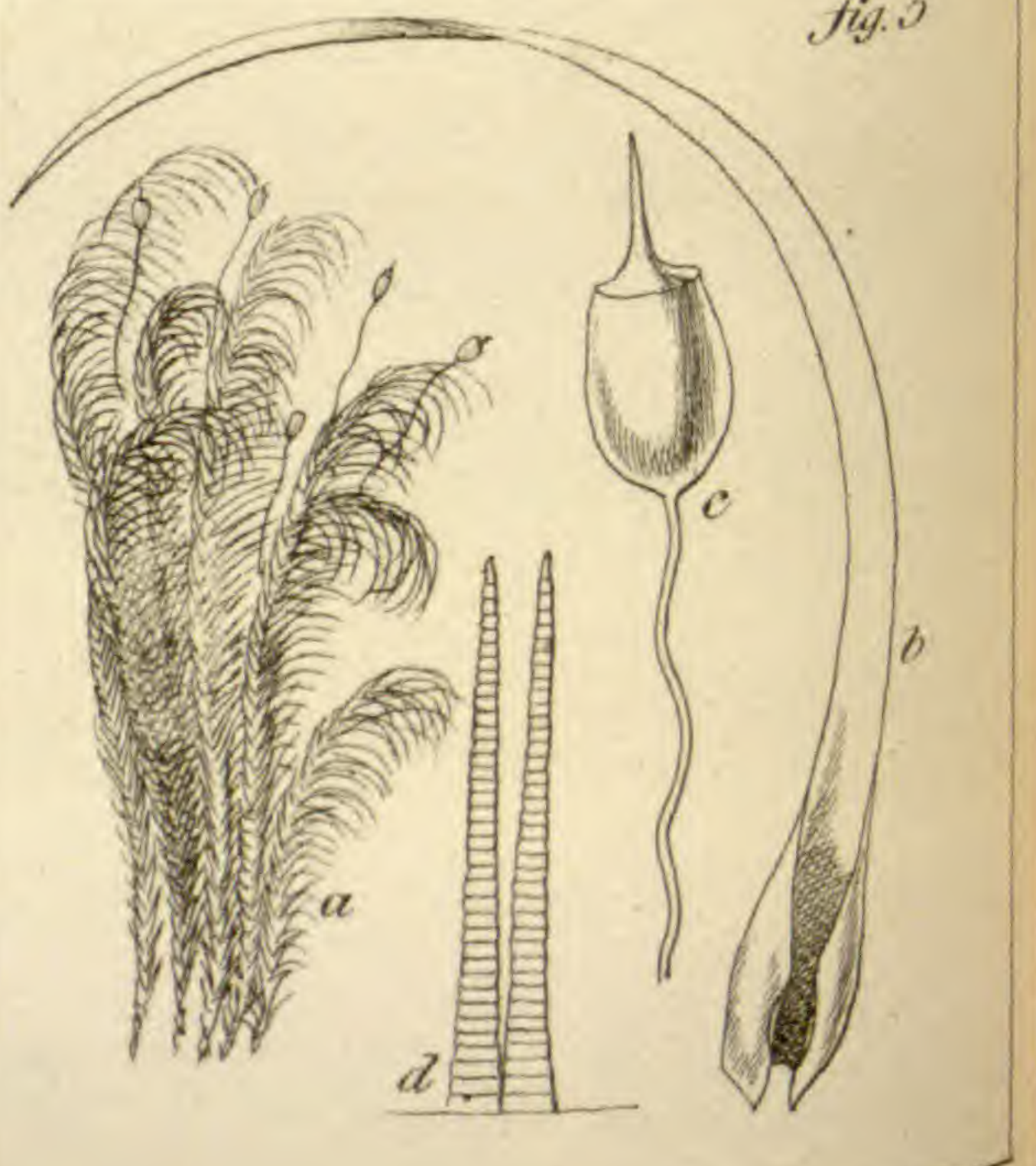


Fig. 5



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TAB. XXII.

Musci Indici, *continued.*

Fig. 1. Neckera *blanda.* Harv.

a. Plant; *nat. size.* *b.* leaf of a branch. *c.* leaf of the stem. *d.* capsule:—*magnified.*

Fig. 2. Neckera *cordata.* Hook.

a. Plant; *nat. size.* *b.* leaf of the stem. *c.* leaf of a small branch. *d.* capsule:—*magnified.*

Fig. 3. Neckera *squamosa.* Hook.

a. Plant; *nat. size.* *b. b.* leaves:—*magnified.*

Fig. 4. Syrrhopodon *repens.* Harv.

a. a. leaves. *b.* base of a leaf to show the pellucid cellules: —*magnified.*

Fig. 5. Thysanomitrion *uncinatum.* Harv.

a. Plants; *nat. size.* *b.* leaf. *c.* capsule. *d.* teeth of the peristome:—*magnified.*

Fig. 1

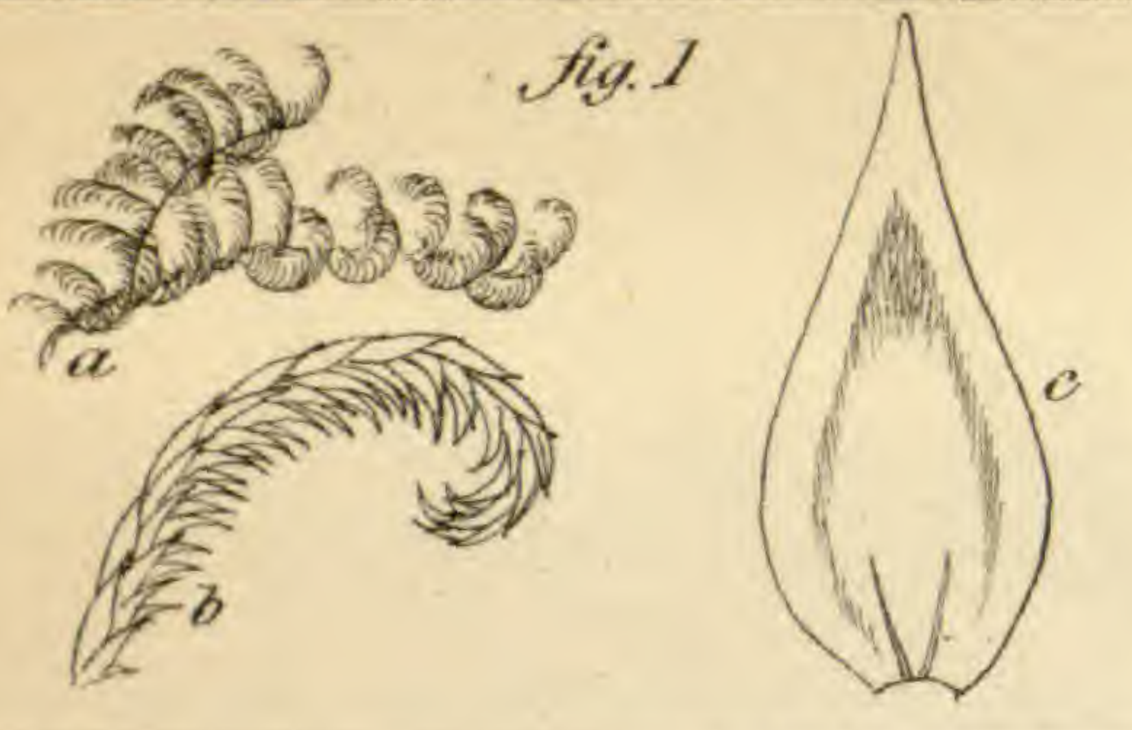


Fig. 2

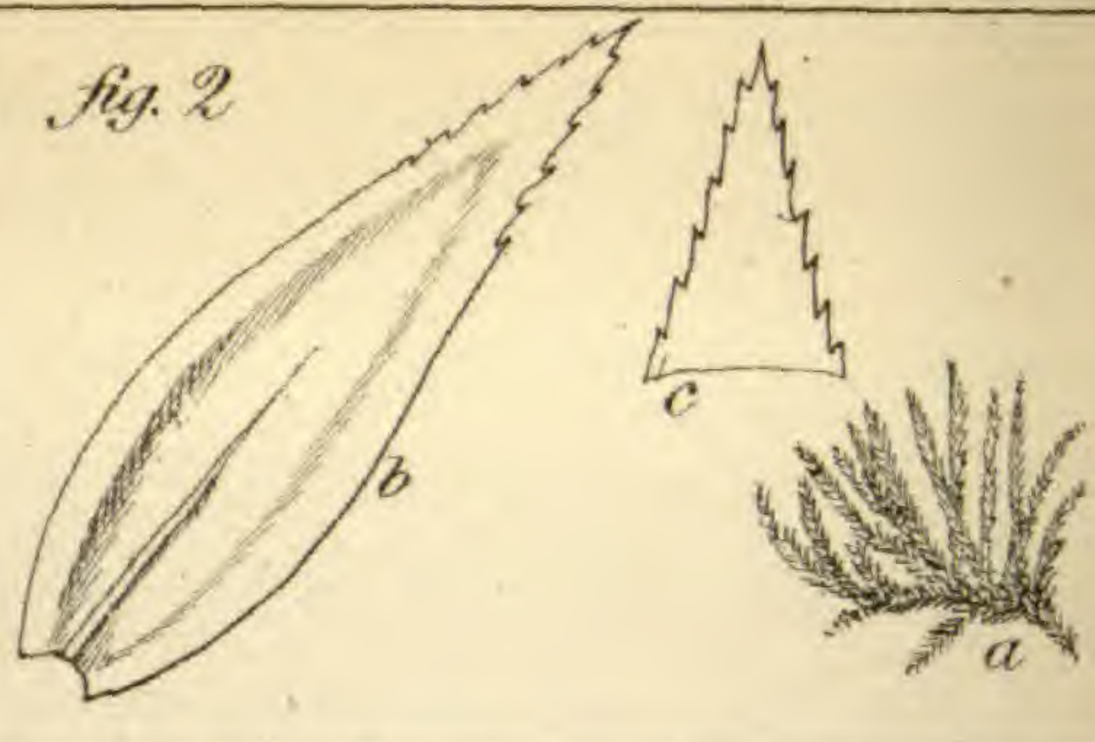


Fig. 3

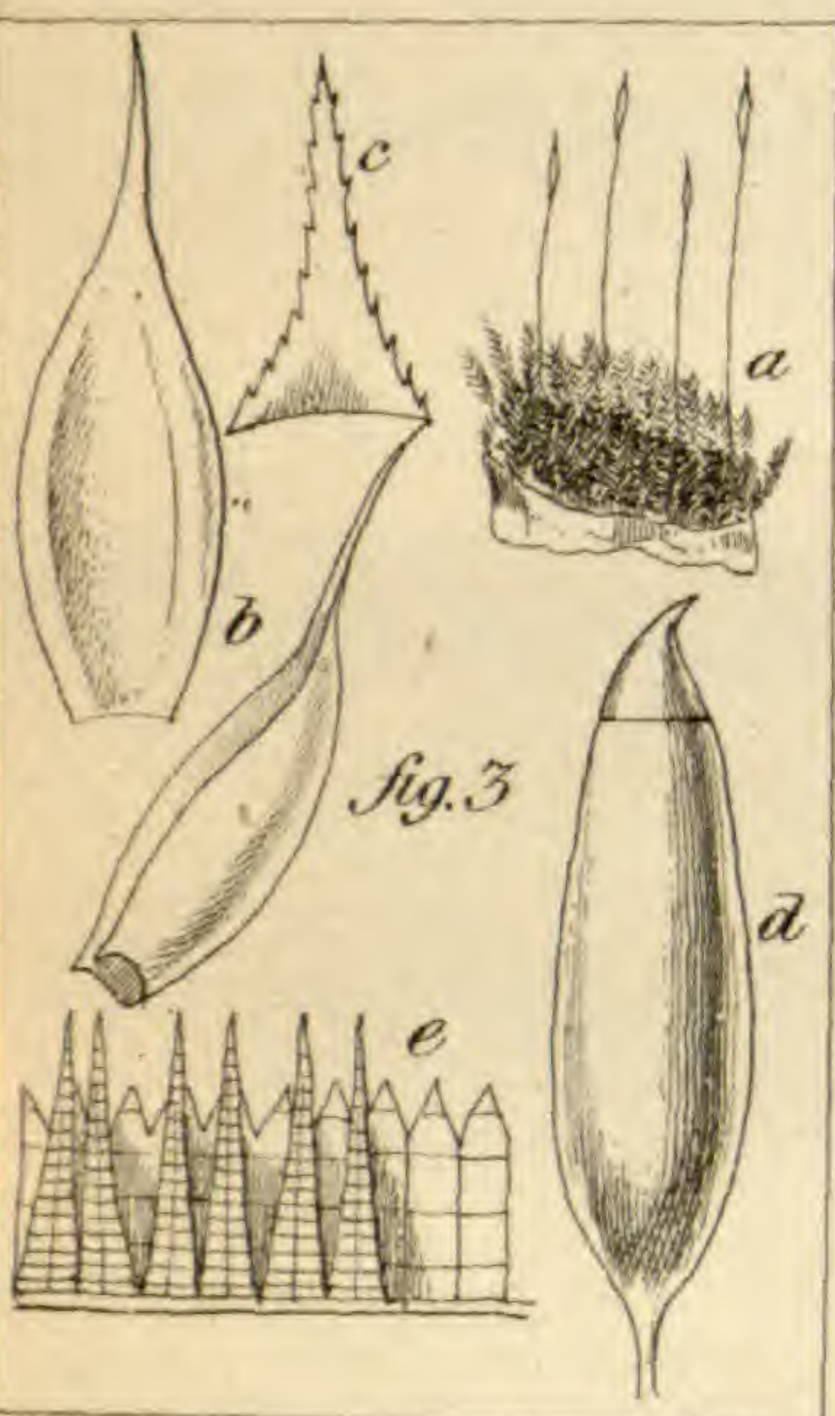


Fig. 4

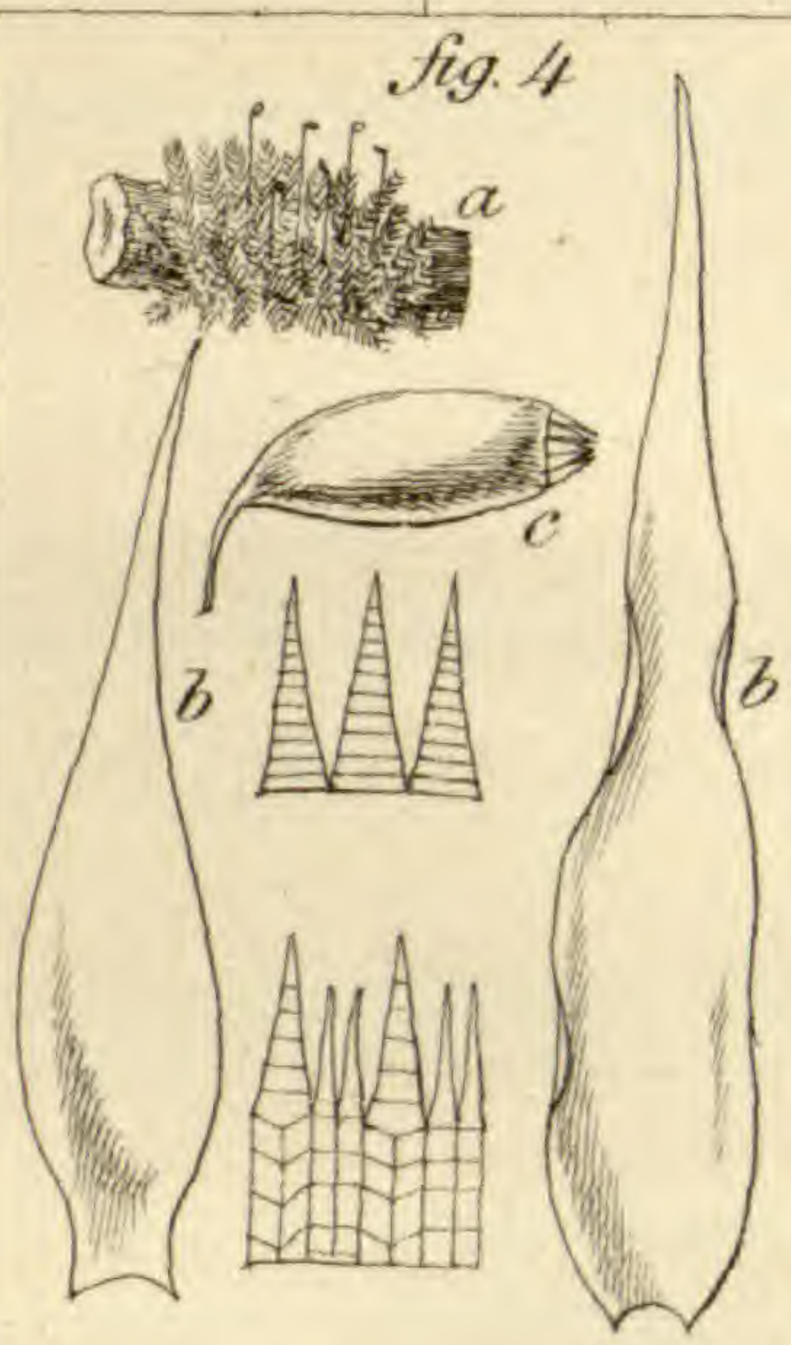


Fig. 5

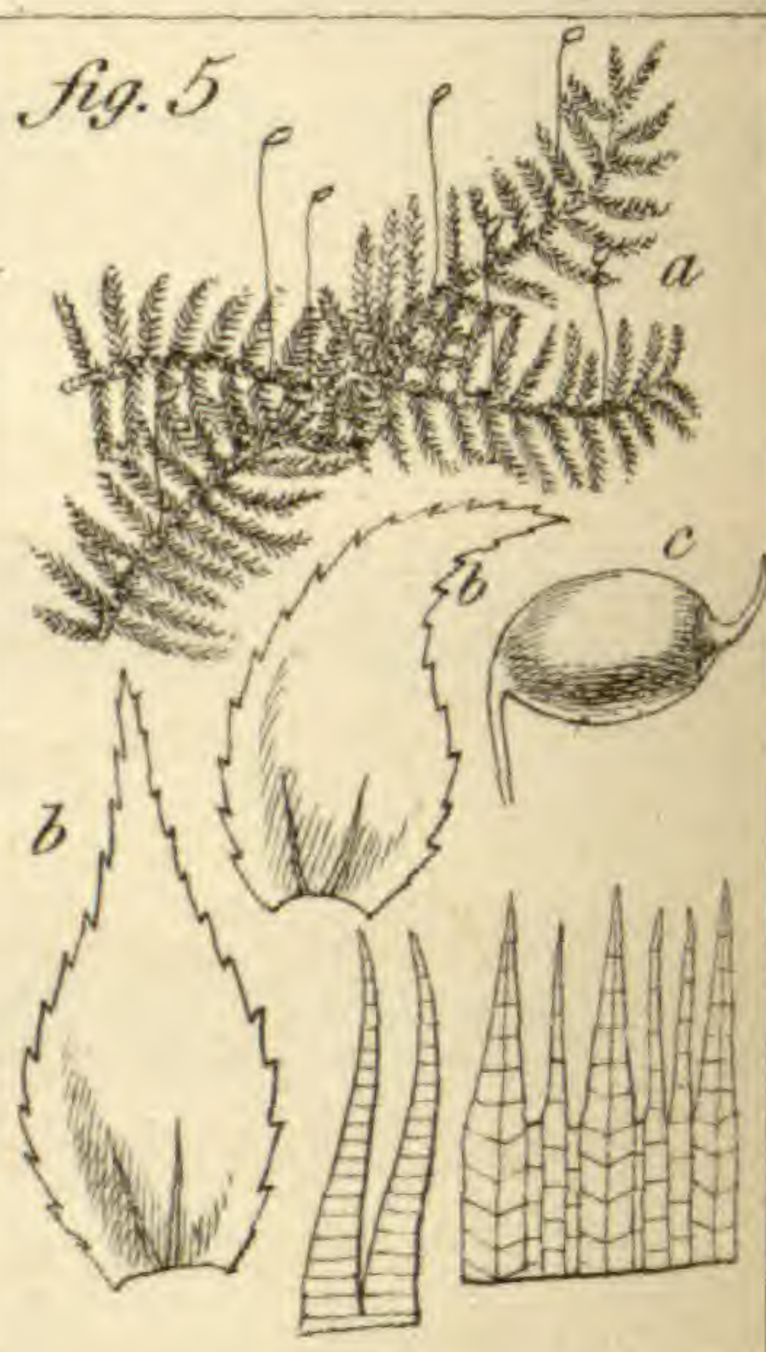


Fig. 6

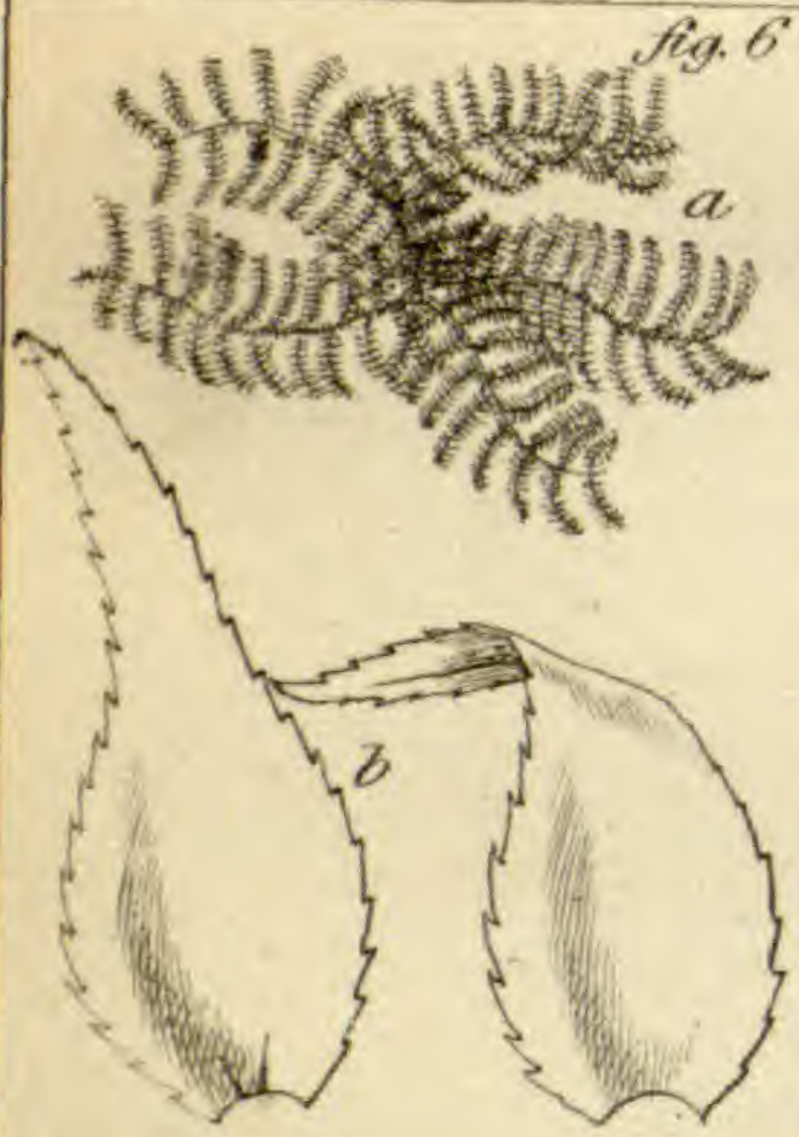


Fig. 7

Fig. 8

Fig. 9

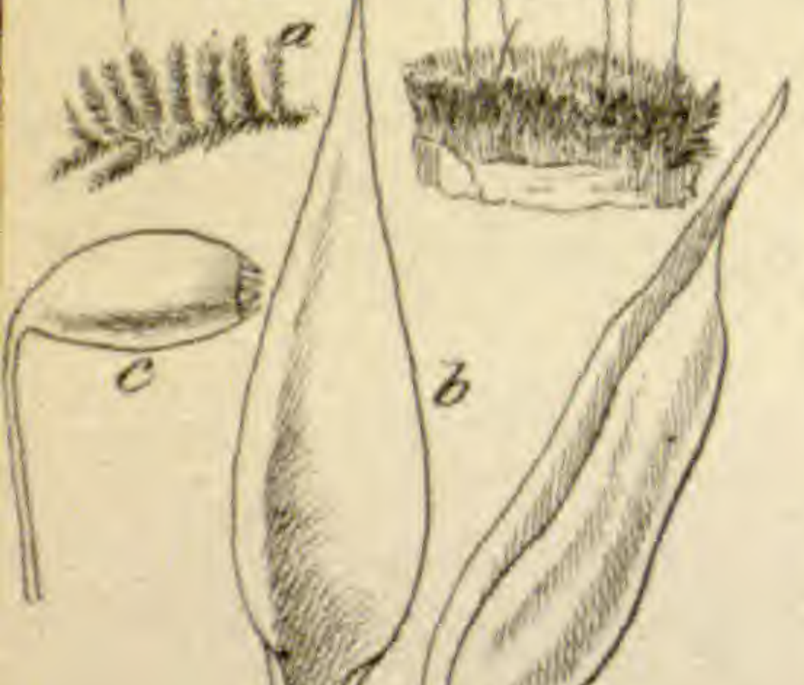
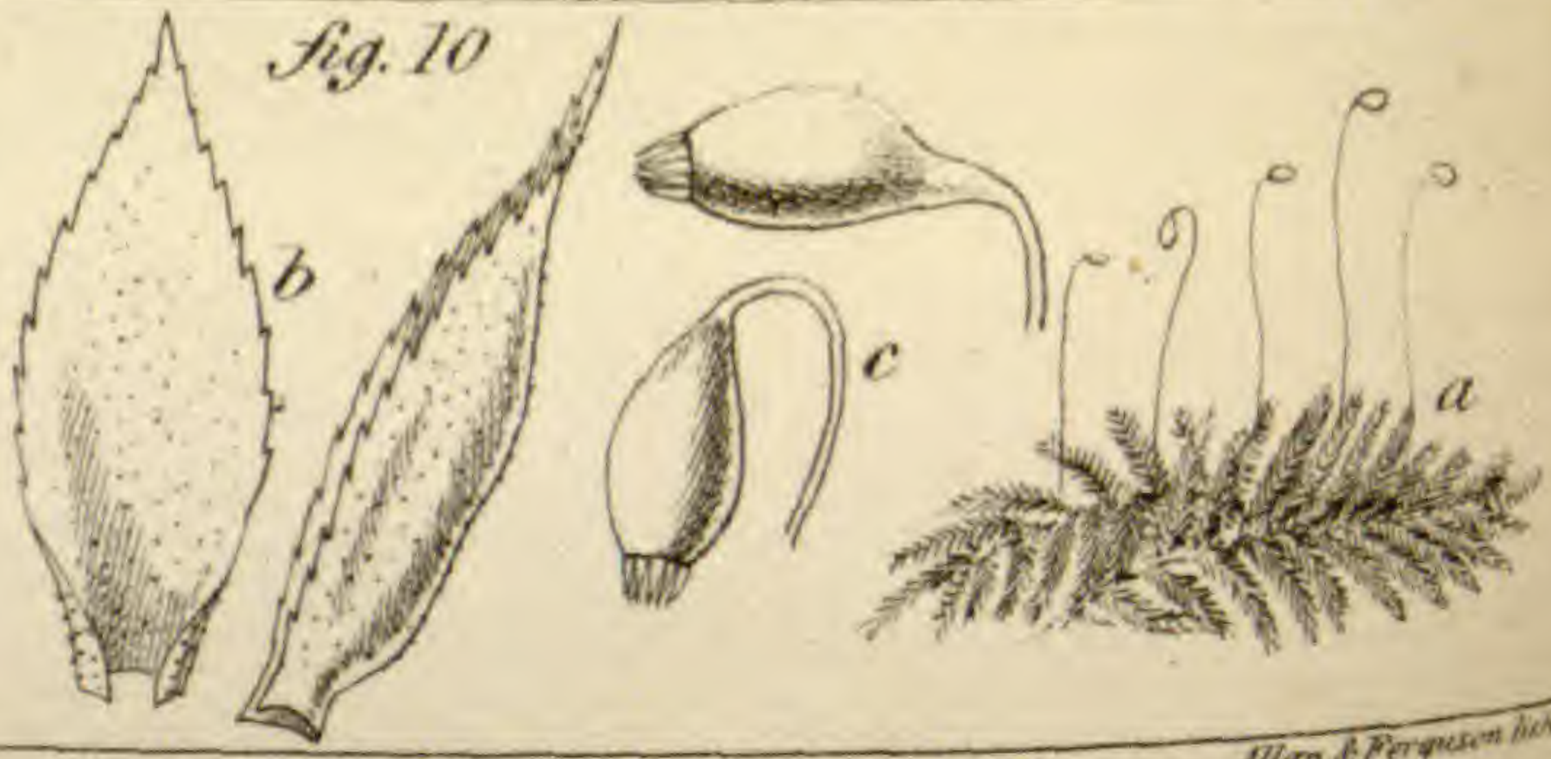


Fig. 10



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TAB. XXIII.

MUSCI INDICI, *continued.*

Fig. 1. Leskea *secunda.* Hook.
a. Plant; *nat. size.* *b.* branch. *c.* leaf:—*magnified.*
Fig. 2. Leskea *fulva.* Harv.
a. Plant; *nat. size.* *b.* branch. *c.* leaf:—*magnified.*
Fig. 3. Leskea *polyantha.* Hedw. var. *Indica.*
a. Plants; *nat. size.* *b.* leaves. *c.* point of a leaf. *d.* capsule. *e.* peristome:—*magnified.*
Fig. 4. Hypnum *microcarpum.* Hook.
a. Plants; *nat. size.* *b. b.* leaves. *c.* capsule. *d. e.* portions of the outer and inner peristome:—*magnified.*
Fig. 5. Hypnum *cyperoides.* Hook.
a. Plants; *nat. size.* *b. b.* leaves. *c.* capsule. *d. e.* portions of the outer and inner peristome:—*magnified.*
Fig. 6. Hypnum *retroflexum.* Hook.
a. Plants; *nat. size.* *b.* leaves:—*magnified.*
Fig. 7. Hypnum *curvulum.* Hook.
a. Plants; *nat. size.* *b.* leaves. *c.* capsule:—*magnified.*
Fig. 8. Hypnum *papillatum.* Harv.
a. Plant; *nat. size*, of var. α. *b.* do. of var. β. *c.* leaf of α. *d.* leaf of β. *e.* capsule of α:—*magnified.*
Fig. 9. Hypnum *humile.*
a. Plants; *nat. size.* *b.* leaves. *c.* capsule:—*magnified.*
Fig. 10. Hypnum *punctulatum.*
a. Plant; *nat. size.* *b.* leaves. *c.* capsules:—*magnified.*

Fig. 1

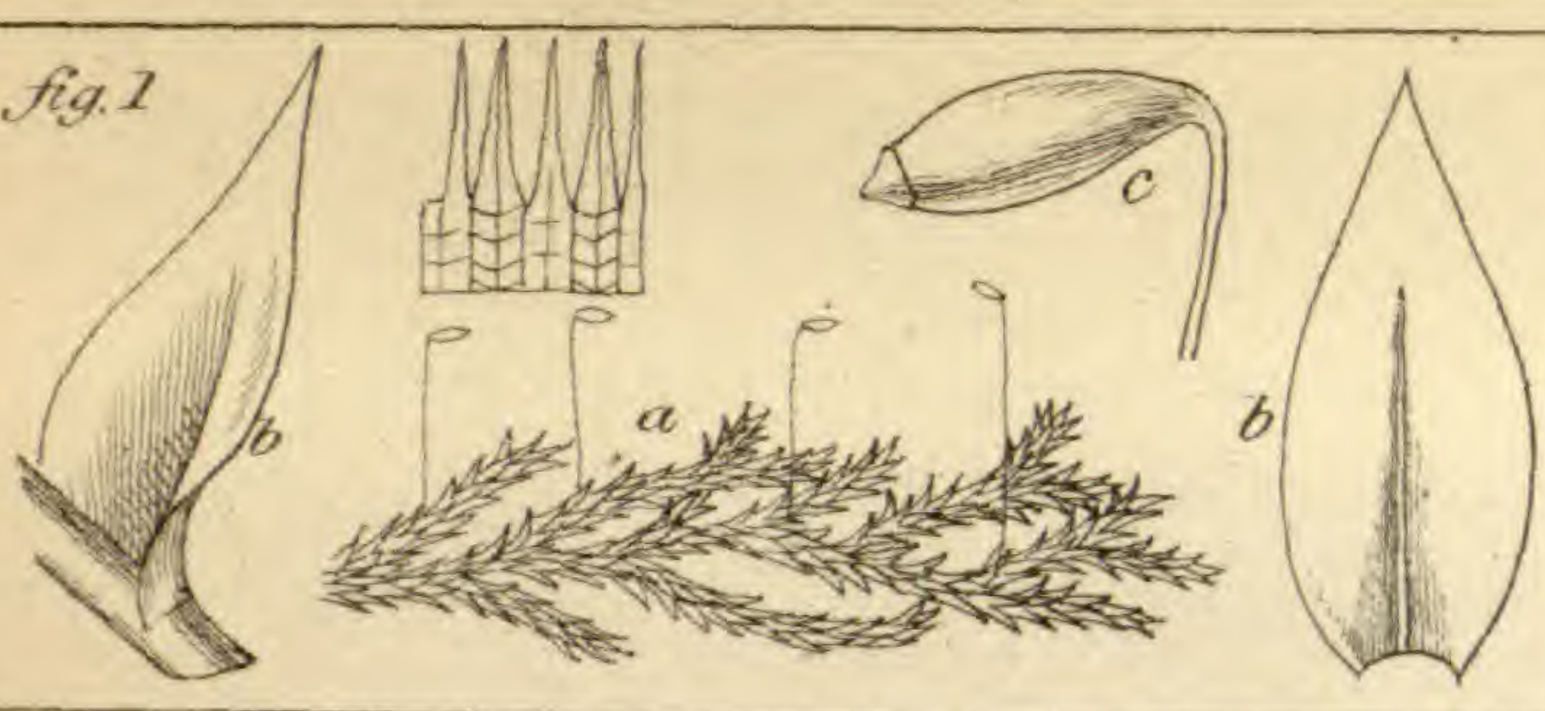


Fig. 2

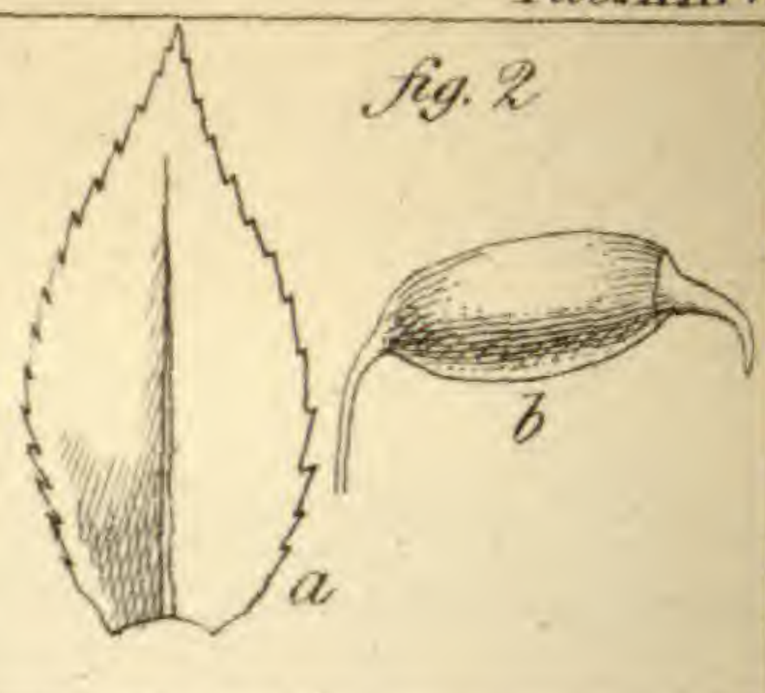


Fig. 3

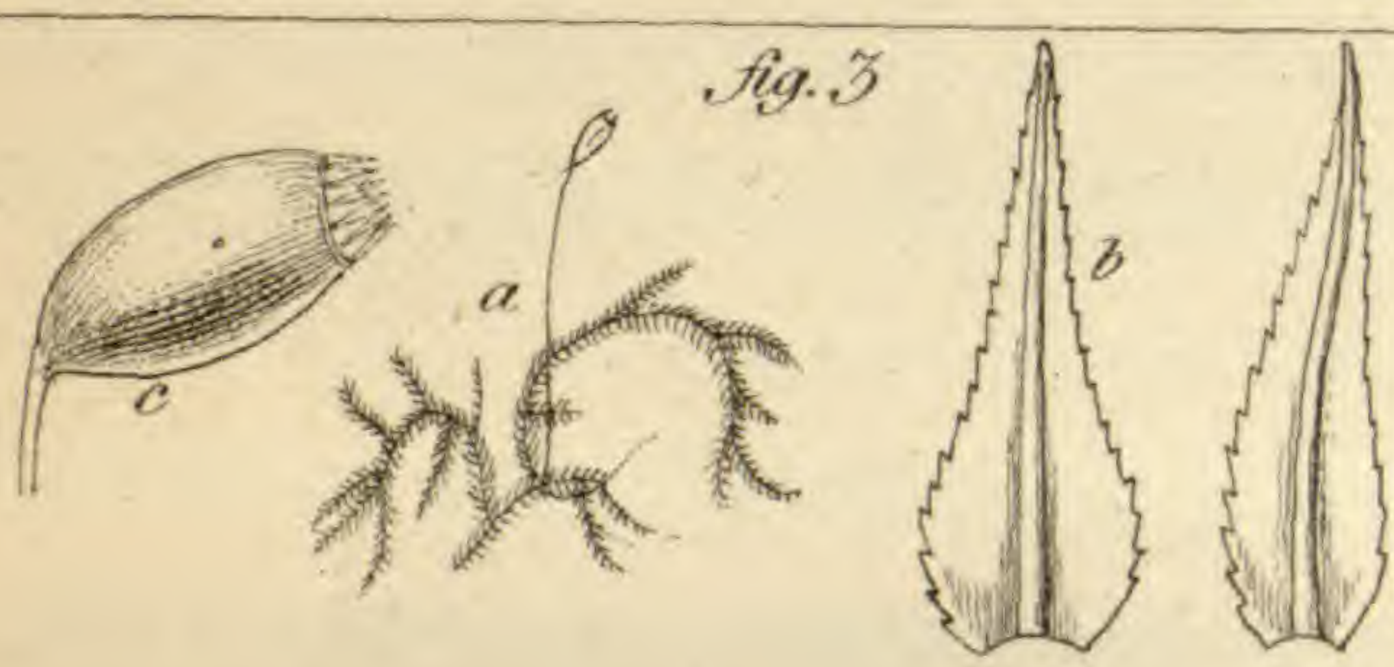


Fig. 4

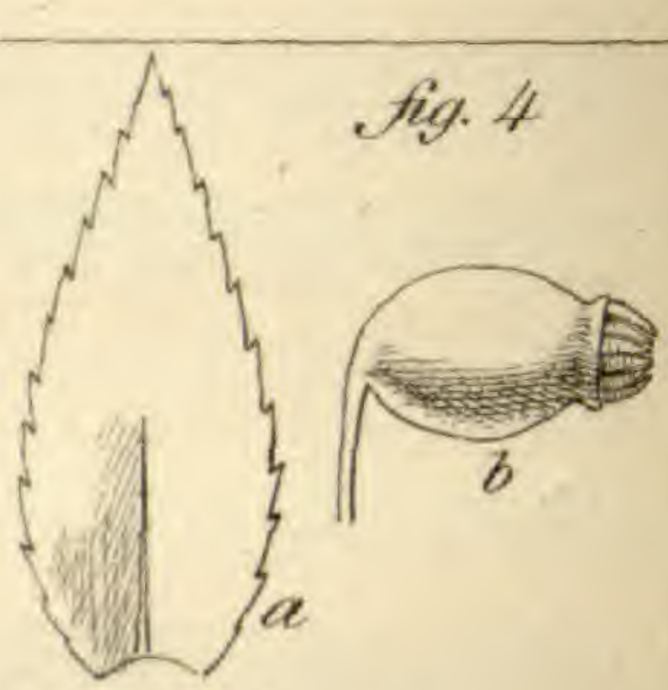


Fig. 5

Fig. 6

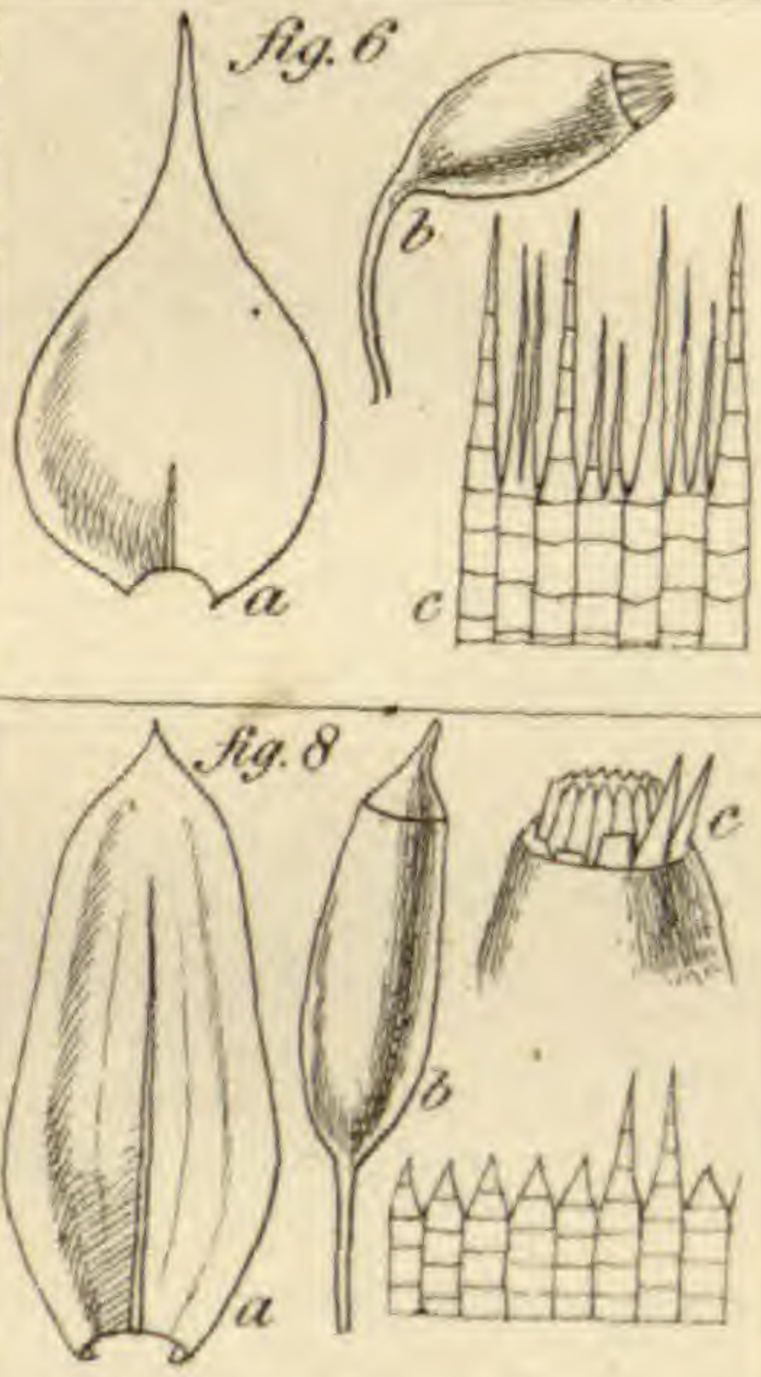


Fig. 7

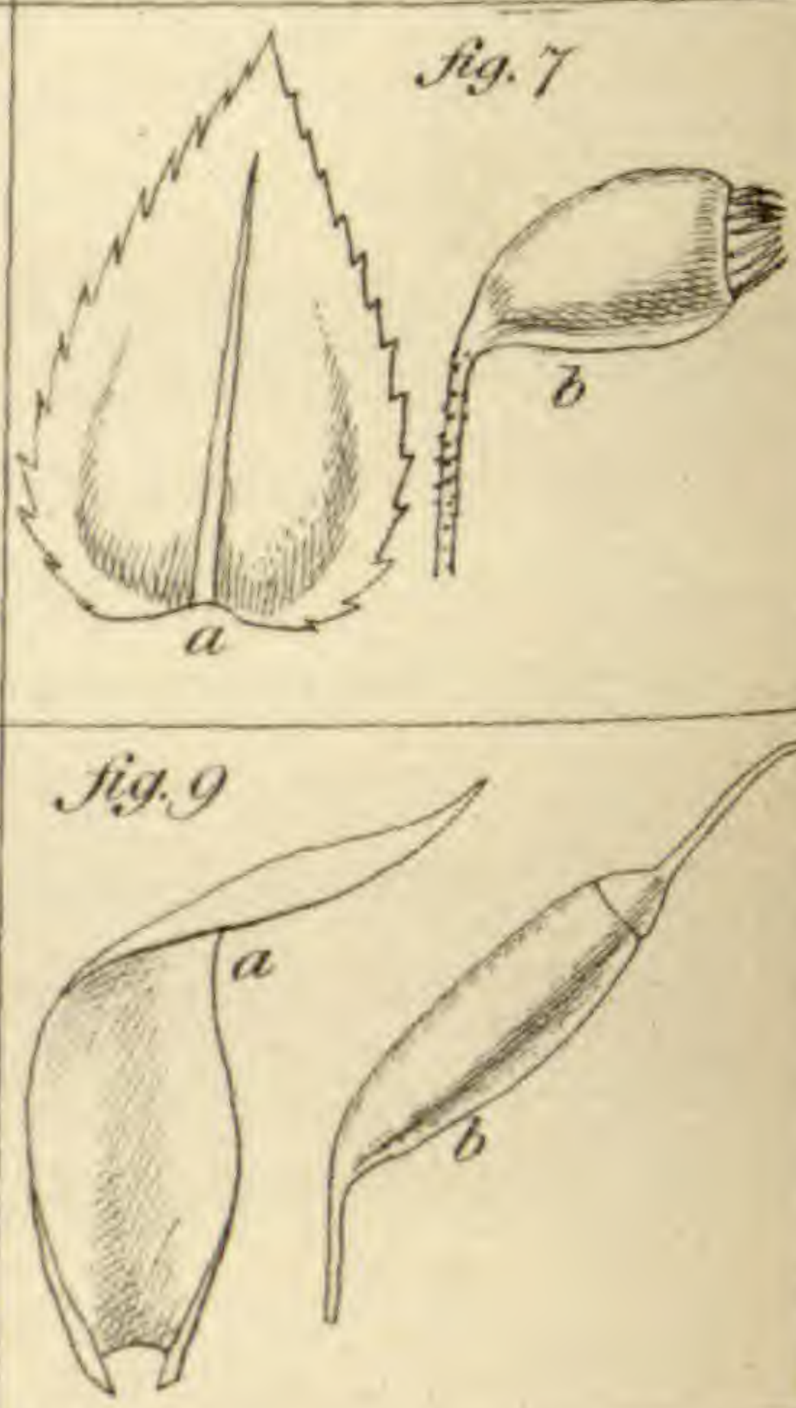


Fig. 8

Fig. 9

Fig. 10

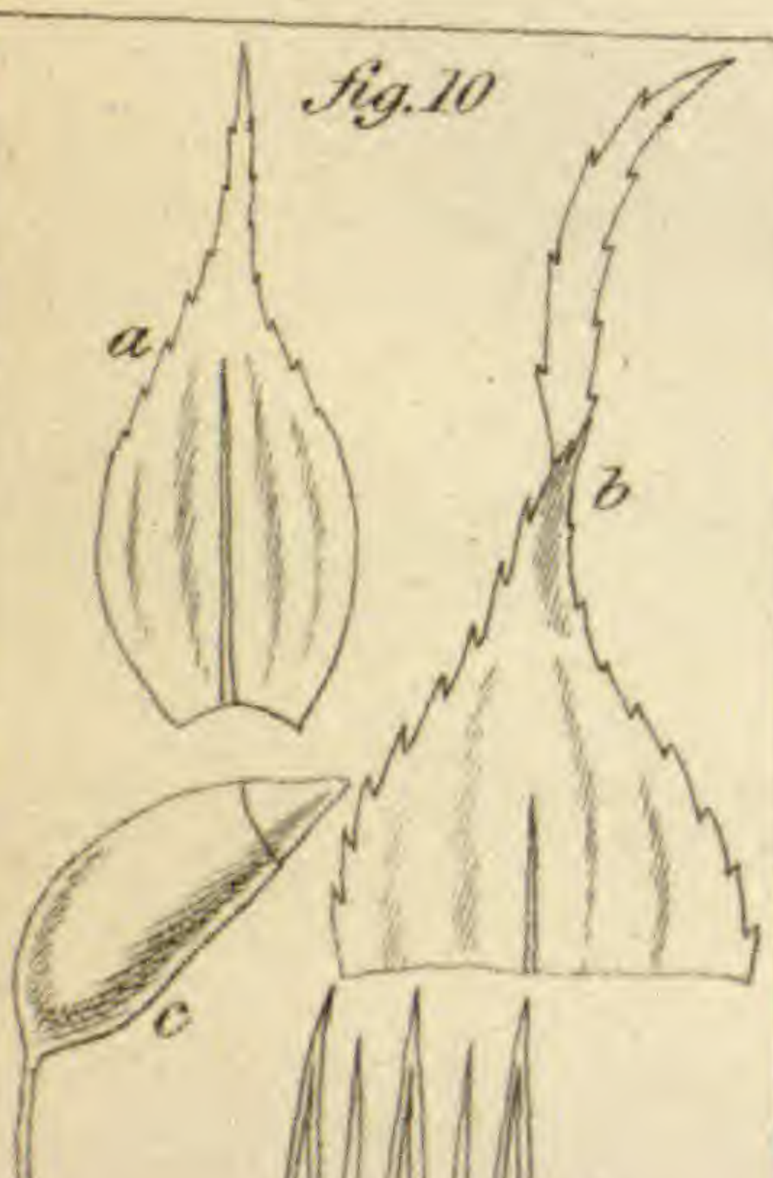


Fig. 11

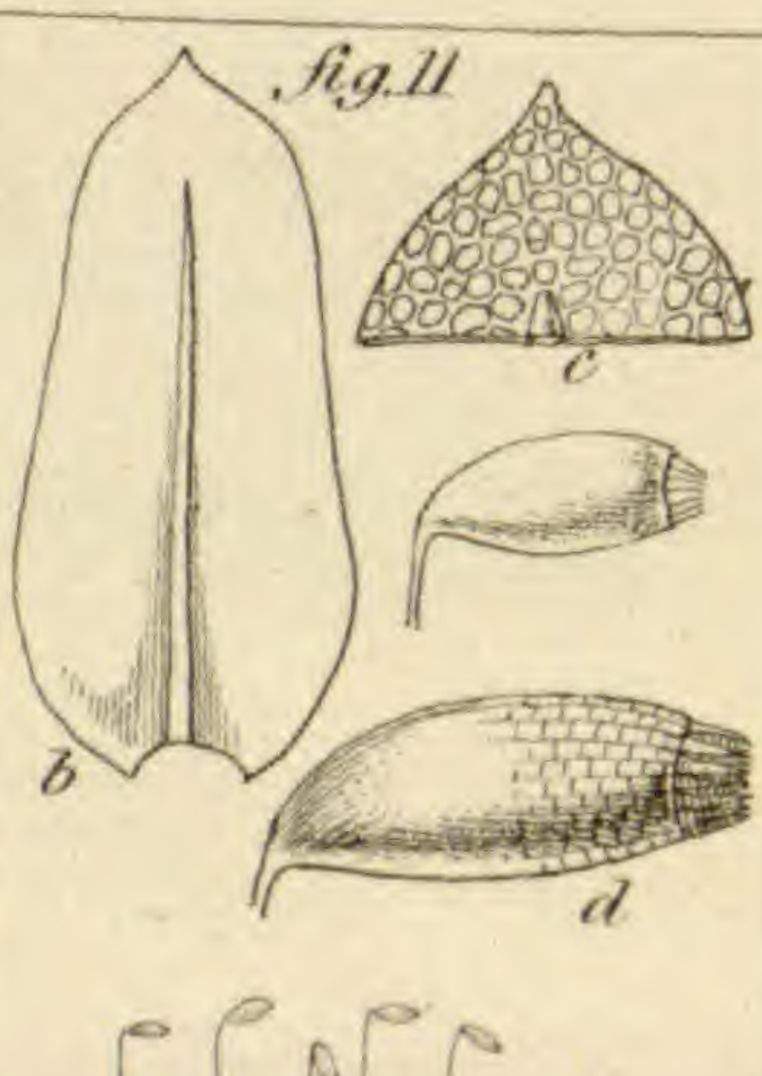
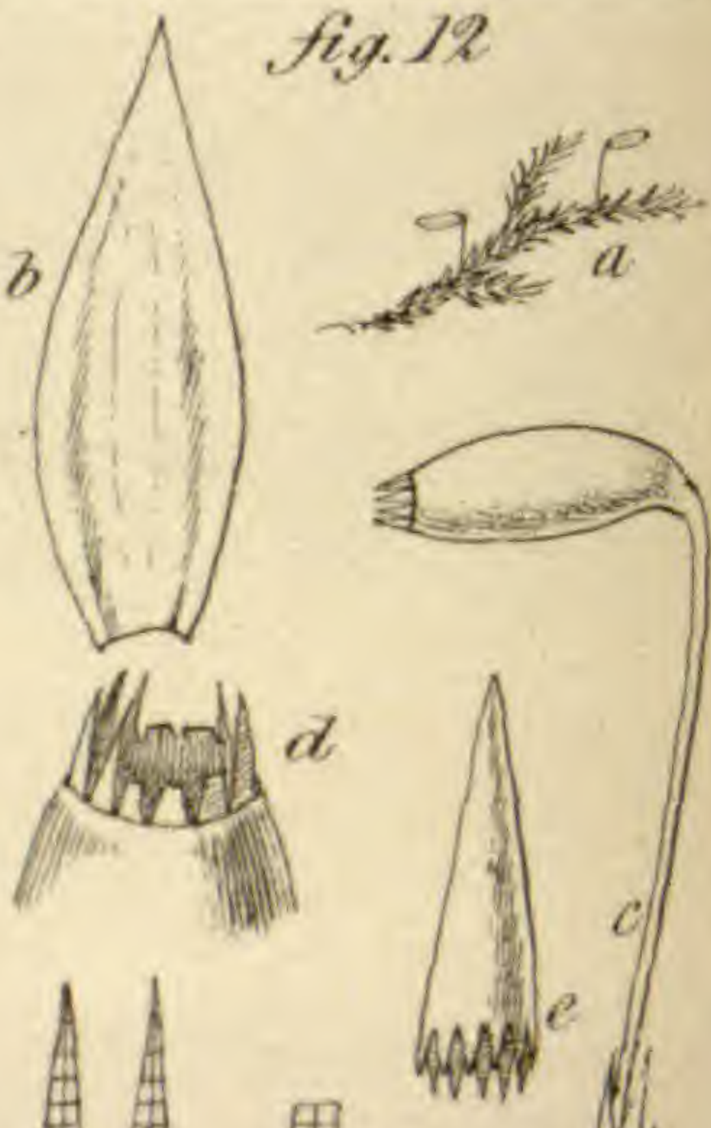


Fig. 12



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TAB. XXIV.

Musci Indici, *continued.*

Fig. 1. Hypnum *Tavoyense.* Hook.
a. Plant; *nat. size.* *b. b.* leaves. *c.* capsule. *d.* portion of inner peristome:—*magnified.*

Fig. 2. Hypnum *vagans.* Harv.
a. leaf. *b.* capsule:—*magnified.*

Fig. 3. Hypnum *nervosum.* Hook.
a. Plant; *nat. size.* *b.* leaves. *c.* capsule:—*magnified.*

Fig. 4. Hypnum *ambiguum.* Harv.
a. leaf. *b.* capsule:—*magnified.*

Fig. 5. Hypnum *alopecuroides.* Hook.
a. Plant; *nat. size.* *b.* leaf. *c.* point of do.:—*magnified.*

Fig. 6. Hypnum *inflexum.* Harv.
a. leaf. *b.* capsule. *c.* portion of the inner peristome:—*magnified.*

Fig. 7. Hypnum *cordatum.* Harv.
a. leaf. *b.* capsule:—*magnified.*

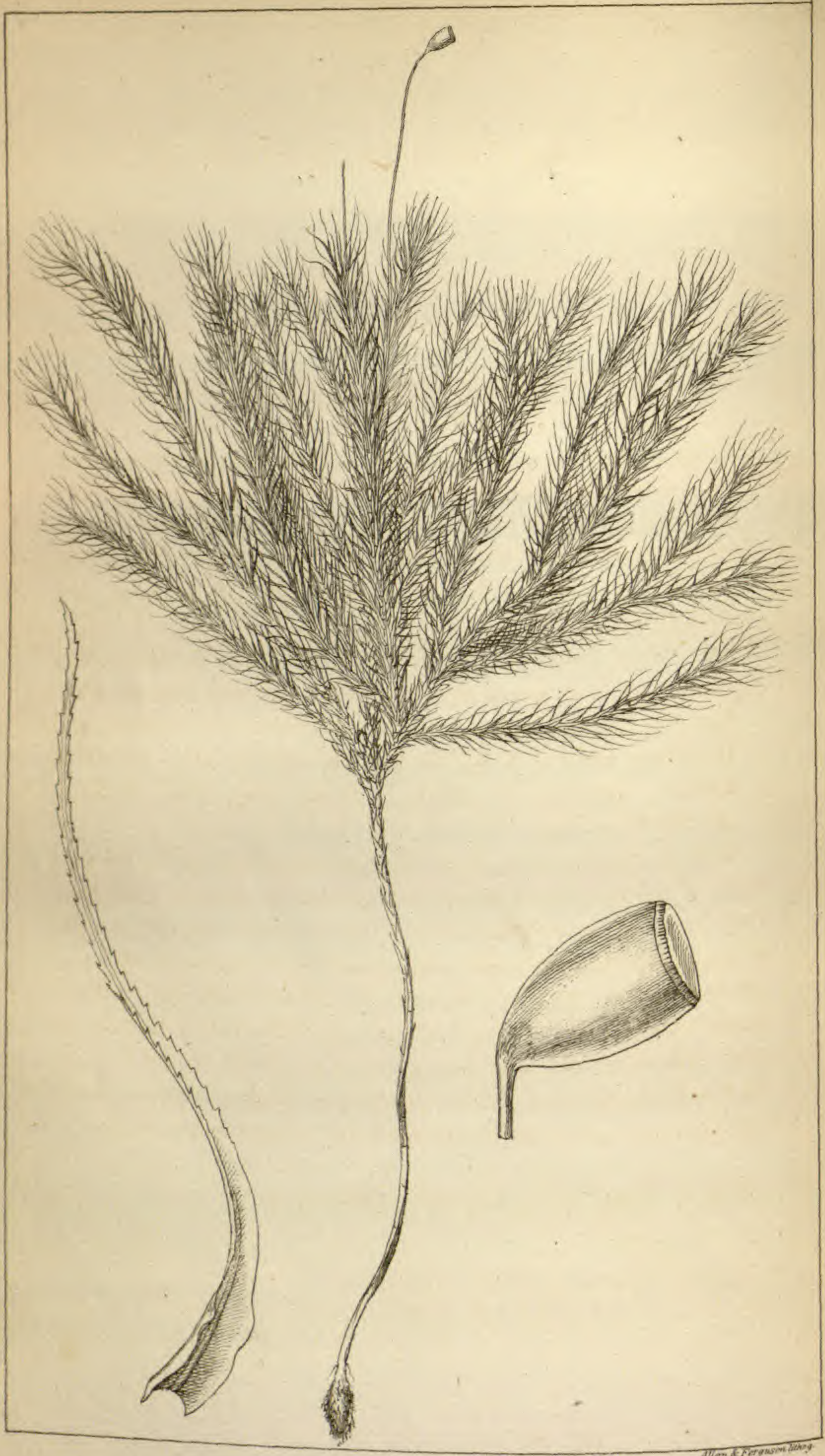
Fig. 8. Leskea *pterogonioides.* Harv.
a. leaf. *b.* capsule. *c.* mouth of do., showing the remains of the peristome:—*magnified.*

Fig. 9. Hypnum *propinquum.*
a. leaf. *b.* capsule:—*magnified.*

Fig. 10. Hypnum *Kamounense.*
a. leaf. *b.* point of do. *c.* capsule. *d.* portion of the inner peristome:—*magnified.*

Fig. 11. Hookeria *obtusifolia.*
a. Plant; *nat. size.* *b.* leaf. *c.* point of do. *d.* capsule:—*magnified.*

Fig. 12. Pterogonium *microcarpum.*
a. Plant; *nat. size.* *b.* leaf. *c.* capsule and seta. *d.* mouth of the capsule, showing the remains of the peristome. *e.* calyptra from an immature capsule:—*magnified.*



Allan & Ferguson lithog.

TAB. XXV.

Polytrichum dendroides.

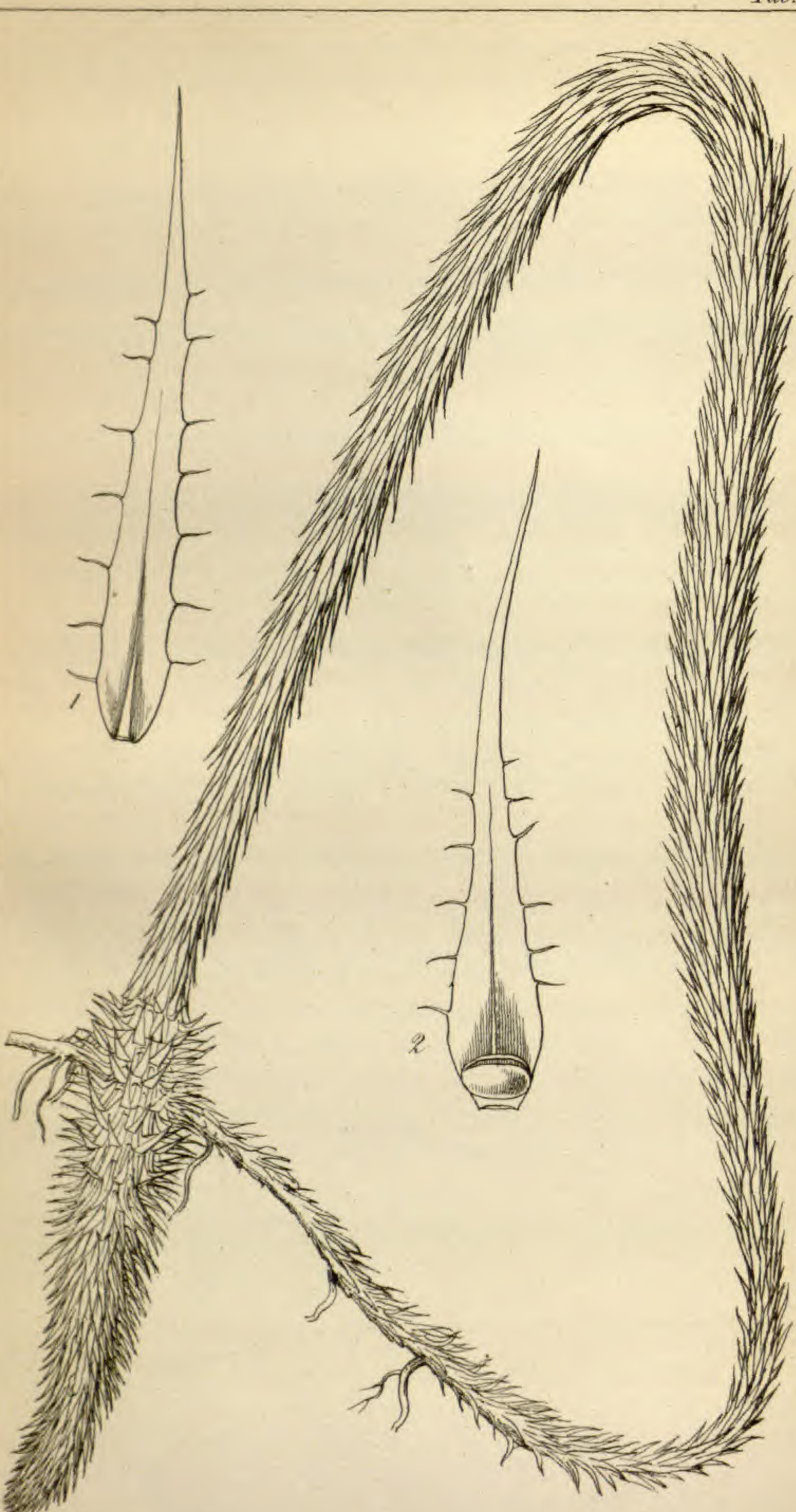
Elatum comosum, foliis elongatis lineari-subulatis serratis siccitate tortilibus, seta terminali (vel ob innovationibus laterali), capsula pyriformi-ovali tereti inclinata exapophysata.

Polytrichum dendroides. *Hedw. Sp. Musc. Suppl. I.* 2. *p.* 346. *II.* 2. *p.* 2. *t.* 151. *f.* 1. *Brid. Musc. Rec. II. P.* 1. *p.* 101. *t.* 5. *f.* 6.

Hab. First found in the Straits of Magellan by *Commerson.* South part of Terra del Fuego. *C. Darwin, Esq.* (*n.* 465). On the highest maritime mountains between Valdivia and the river Toltea, S. Chili. *Mr. Reynolds* (*n.* 41). Island of Chiloe. *Cuming* (*n.* 1441). Dusky Bay, New Zealand. *A. Menzies, Esq.*

This is certainly one of the finest species of a very fine Genus; some of my specimens being full 9 inches in length. All bear their branches at the extremity of the stem in a singularly tufted or dendroid manner. The fruit seems to be especially rare: of the two authors who have figured the plant, neither had seen the fructification; and amongst all the specimens that I possess, or have examined, not one had a capsule but that which is here represented, gathered by Mr. Cuming in Chiloe; nor was there a calyptra or operculum, which are yet unknown to authors.

Fig. 1. Leaf. *f.* 2. Capsule:—*magnified.*



Allan & Ferguson lithog.

TAB. XXVI.

Lycopodium Mathewsii.

Ascendens v. erectum subsimplex undique foliosum, foliis numerosis erecto-patentibus imbricatis flaccidis lineari-subulatis uninerviis remote ciliatis, spica terminali sessili, bracteis subulatis ciliatis summis sterilibus.

Hab. Bagasan, Andes of Peru. *Mathews* (*n.* 1778).

Sometimes the lower part of the *stem* creeps and sends forth a branch: at other times the whole stem seems to be erect, about a foot high, thickly clothed with nearly erect, imbricated *leaves*, which are not at all rigid, but thin and almost membranous. The bracteal scales scarcely differ from these but in being more subulate, broader at the base, and there bearing the two-valved, kidney-shaped *capsules* filled with a fine powdery substance.

Fig. 1. Stem-leaf. *f.* 2. bracteal scale, with its capsule:—*magnified.*

Allan & Ferguson lithog.

TAB. XXVII.

Arbutus Xalapensis.

Arbuscula, foliis oblongis coriaceis integerrimis acutiusculis supra glabris subtus ramulisque ferrugineo-tomentosis glandulosis, racemis terminalibus subcongestis tomentosis, corollis ovatis glabris.

Arbutus Xalapensis. *Humb. et Kunth Gen. et Sp. v.* 3. *p.* 279. *Kunth Syn. v.* 2. *p.* 327. *Andrieux, Pl. Mexic. Exsic.* (*n.* 263).

Hab. Mexico. First detected by *Humboldt* and *Bonpland* in woods near Xalapa, 4,200 Paris feet above the level of the sea. In the province of Oaxaca. *Andrieux.*

This seems, by the specimens in my Herbarium, to be a small shrub, having flowers about as large as those of *Erica Tetralix*, succeeded by drupaceous berries which are the size of a pea, and covered with small warty excrescences. The internal structure of the fruit appears to be that of an *Arctystaphylos*, and the external that of *Arbutus*.

Fig. 1. Flower. *f.* 2. stamen. *f.* 3. Pistil. *f.* 4. Branch with fruit (*nat. size*). *f.* 5. Berry laid open, showing two of the cells, each with one seed. *f.* 6. seed laid open to show the embryo :—*magnified.*

TAB. XXVIII.

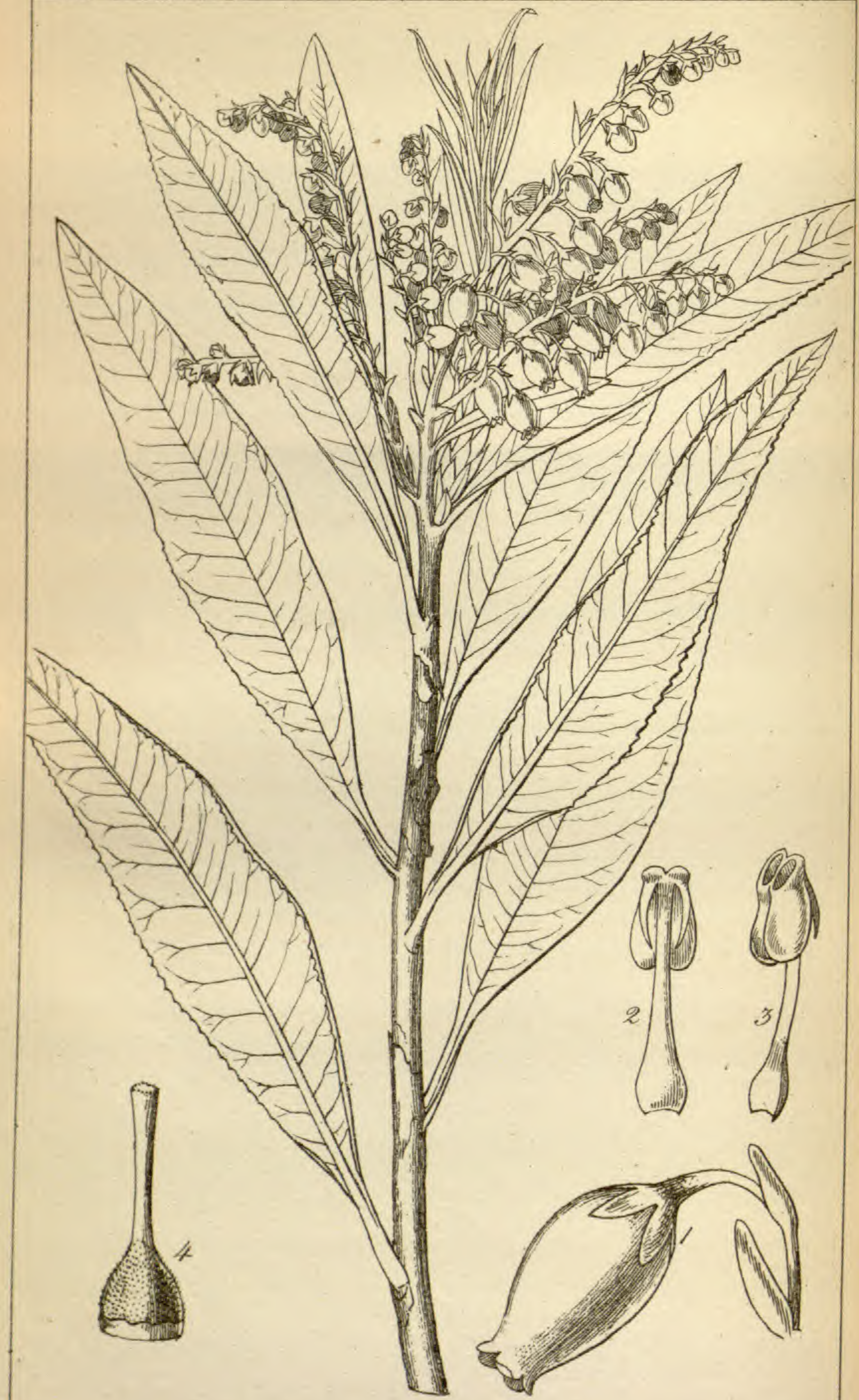
Cleomella Mexicana.

Cleomella Mexicana. "*Ic. Fl. Mex. ined.*"—*De Cand. Prodr. v.* 1. *p.* 237.

Hab. San Felipe, Texas. *Drummond* (Herb. Texas. III. *n.* 171).

Professor De Candolle seems to have derived his sole knowledge of this interesting plant from an unpublished drawing. Mr. Drummond gathered it in Texas, and has thus enabled me to figure it. The *plant* is annual, a foot and more high, branched upwards, glabrous. *Leaves* petiolate, trifoliate; leaflets linear-lanceolate, entire, the upper ones bifoliate or simple. *Flowers* in leafy or bracteated racemes, small, yellow. *Calyx* of 4 small sepals. *Corolla* of 4 equal, subspathulate petals. *Stamens* 6. *Filaments* curved; *Anther* linear-oblong. *Germen* stipitate. *Capsule* somewhat rhomboidal, reticulated. *Seeds* 4—5. *Embryo* conduplicate.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Capsule. *f.* 4. Seed. *f.* 5. Receptacle (the seeds and two valves having fallen away): —*magnified.*



Allan & Ferguson sculp.

TAB. XXIX.

ARBUTUS DISCOLOR.

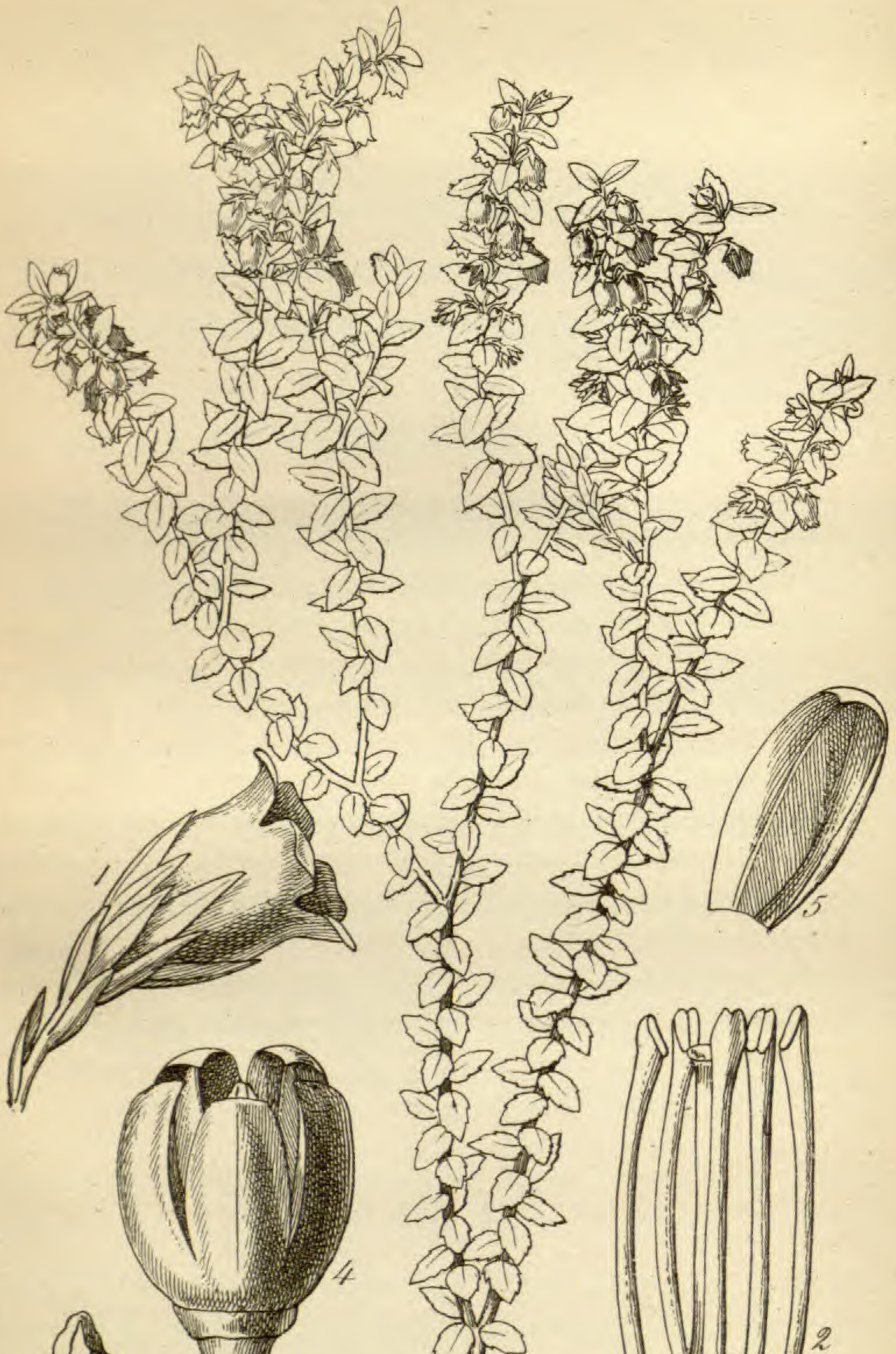
Fruticosa, cortice decidua, foliis breviter petiolatis coriaceis glabris marginibus recurvis argute denticulatis, racemis terminalibus compositis glabriusculis, corollis urceolato-oblongis.

Arctystaphylos? *Andrieux, Pl. Mexic. exsicc.* (*n.* 262).

HAB. Toluca, Mexico. *Fl.* Apr.-Nom. vernac. *Garambullo. Andrieux.*

This is probably a large growing *plant*, readily distinguished by its rather ample, pale green, copiously toothed foliage, white and glaucous, but by no means downy, beneath. *Pedicels* curved, bracteated, slightly downy. *Filaments* of the *stamens* quite glabrous. *Anthers* with two decurved horns. I have only seen the specimen here figured from M. Andrieux' collection. Whether it should be referred to the *Arctystaphylos* of Tournefort and of M. Kunth, I am unable to say.

Fig. 1. Flower. *f.* 2, 3. Stamens. *f.* 4. Pistil:—*magnified.*



Allan & Ferguson lithog.

TAB. XXX.

PRIONOTES AMERICANA.

Foliis ovatis acutis serratis, corolla campanulata.
Azalea bullata. *Forst. Mst. in Herb. Banks.*
HAB. Cape Horn. *Forster.* Staten-Land, near Terra del Fuego. *Mr. Reynolds* (*n.* 24 and 36).

I am not aware that any Epacrideous plant has been published as a native of the New World. The present one, which I refer to *Prionotes* of Brown, with which it seems to agree sufficiently in character and in general aspect, is an inhabitant of the southern extremity of that vast country. A specimen exists in my Herbarium which was gathered by Forster, and much more beautiful ones have been kindly sent me by Mr. Greene, collected in Staten-Land by Mr. Reynolds. The original *Prionotes* (*P. cyathodes*) is a native of Van Diemen's Land, and differs from this species in its much larger size, lanceolate, remote *leaves*, long *peduncles*, and cylindrical showy *flowers*.

Fig. 1. Flower. *f.* 2. Stamens, pistil, and hypogynous scales. *f.* 3. Section of the germen. *f.* 4. Ripe capsule (from which the seeds have fallen away). *f.* 5. Single valve of the capsule, showing the septum. *f.* 6. Column, 5-lobed at the extremity, to which the ripened seeds were attached:—*magnified.*

Allan & Ferguson Sculpt

TAB. XXXI.

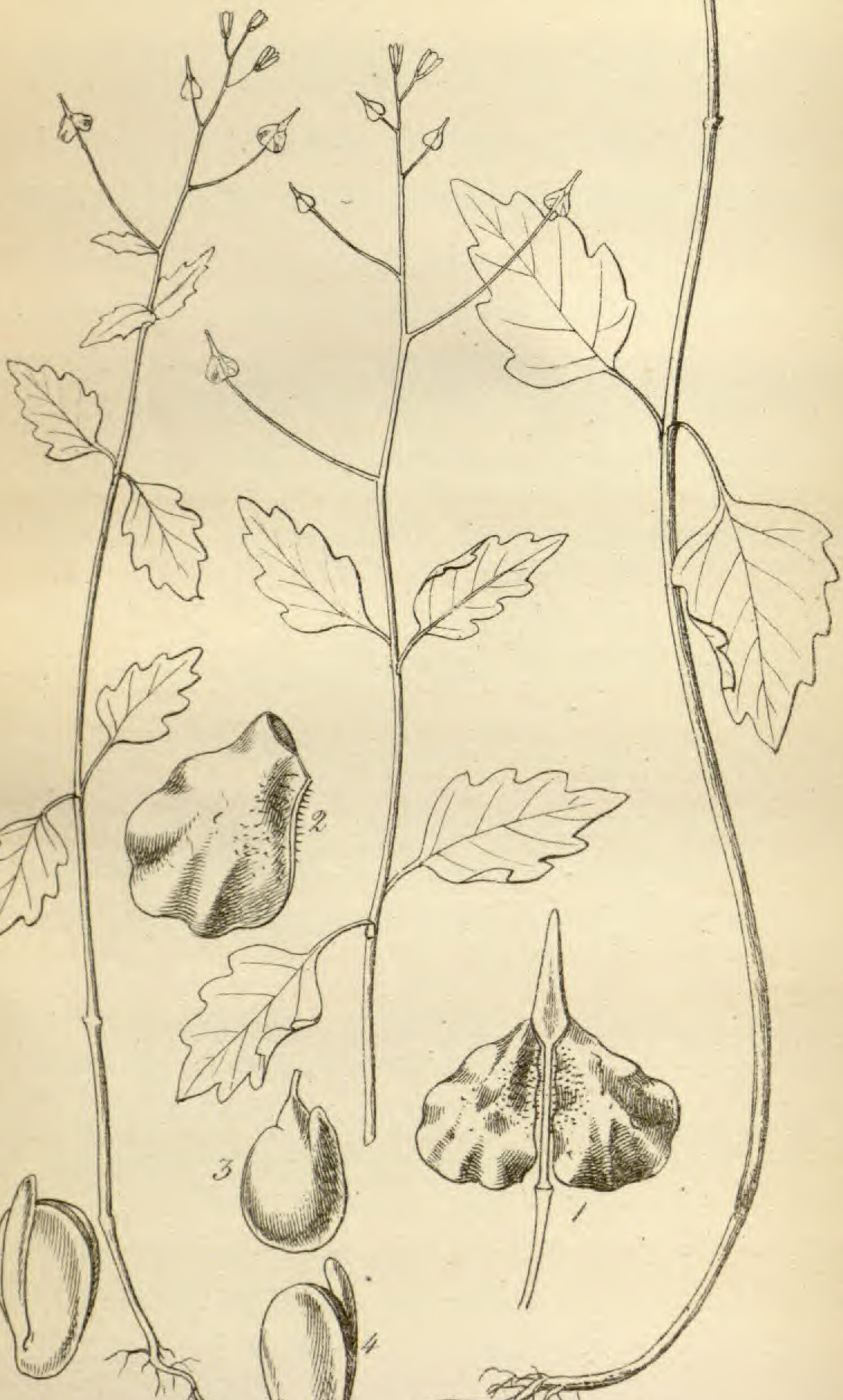
Draba dentata.

Perennis, stolonifera, foliis oblongo-spathulatis subpubescentibus acutissimis grosse subpinnatifido-dentatis, racemis paniculatis, siliculis oblongo-ellipticis pubescentibus stylo elongato terminatis.

Draba dentata. *Hook. et Arn. in Hook. Bot. Journ. p.* 192.
Draba arabizans. *Pursh. Fl. Am. v.* 2. *p.* 434. (not Mich.)
Alyssum dentatum. *Nutt. Gen. Am. v.* 2. *p.* 63.
Hab. Harper's Ferry, Virginia. *Muhlenberg. B. D. Greene, Esq. Mr. Drummond.* Cliffs of the Kentucky river. *Dr. Short.*

A rare, and even yet a very little known plant, apparently confined to two localities in North America. I am indebted for splendid specimens to Dr. Short, and also for some varieties with longer leaves, and the teeth so long that they may truly be called pinnatifid.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. A short and a long stamen. *f.* 5. Silicula:—*magnified.*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TAB. XXXII.

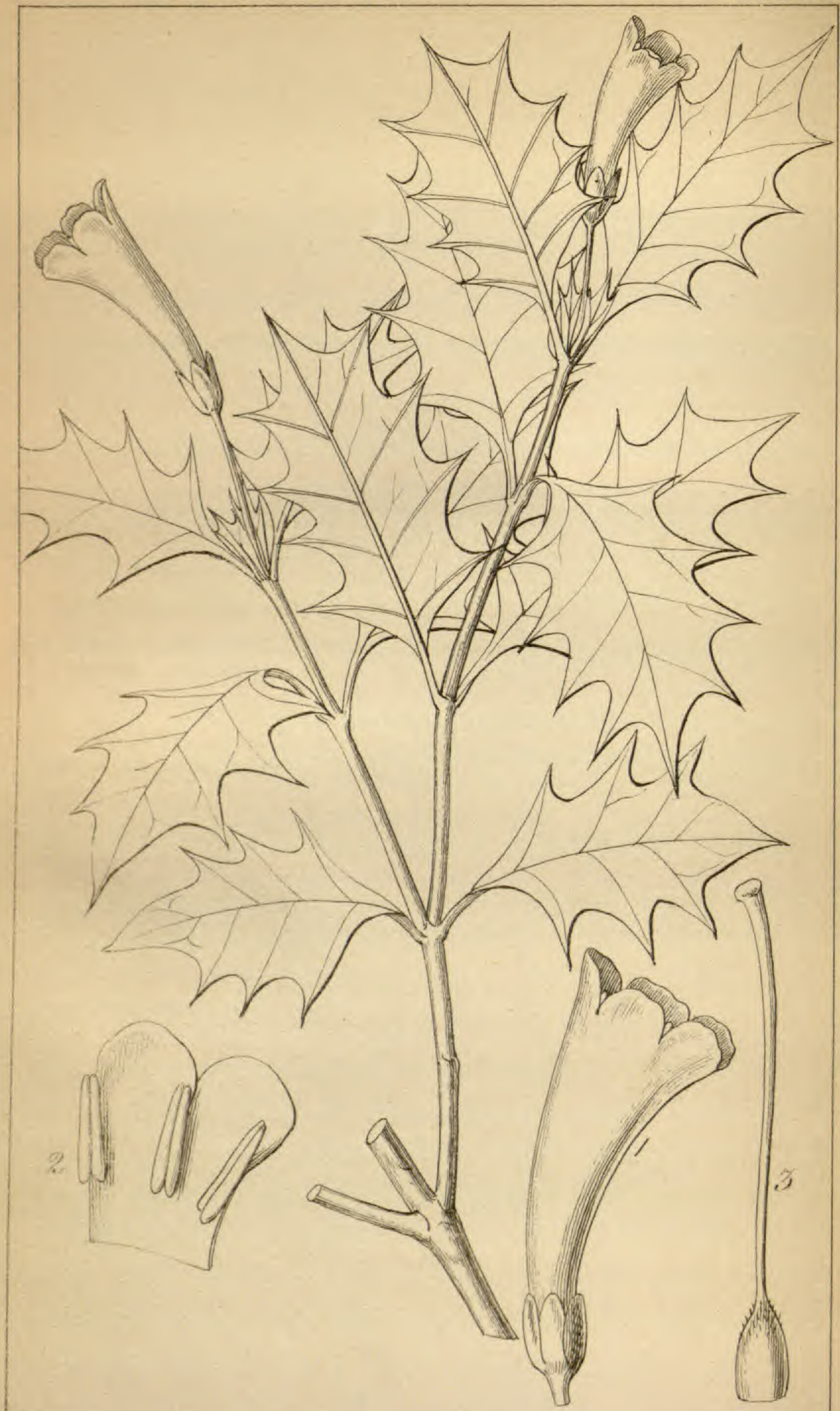
CREMOLOBUS RHOMBOIDEUS.

Annuus, foliis suboppositis petiolatis rhombeo-ovatis angulato-serratis glaberrimis, racemo terminali, pedicellis demum longissimis, siliculæ valvis late obovatis subscabris rugosis immarginatis stylo elongato pyramidato terminatis.

HAB. Cuesto of Purruchuco, Peru. *Mathews* (*n.* 1061).

This singular plant is a *Cremolobus* in everything but the want of a margin to the valves of the pouch: a character, I think, scarcely sufficient in itself to distinguish it as a Genus. The Embryo has its radicle arising from the margin of the cotyledons, which is then applied obliquely to the back of one of them.

Fig. 1. Silicule. *f.* 2. one of the valves. *f.* 3. Seed. *f.* 4, 5. different views of the embryo :—*magnified.*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TAB. XXXIII.

Desfontainia spinosa.

Desfontainia spinosa. *Ruiz et Pav. Fl. Peruv. v.* 2. *p.* 47. *t.* 186. *Don, in Ed. Journ. of Sc.* 1831. *p.* 275.
Desfontainia splendens. *Humb. et Bonpl. Pl. Æquin. v.* 1. *p.* 157. *t.* 45.
Bevania ilicifolia. *Bridges in Herb. nostr.*
β. *parvifolia.* Desfontainia parvifolia? *Don, l. c.*
Hab. Woods in the province of Tarma, and between Muña and Pozuzo. *Ruiz et Pavon.* On Quindiu, in Columbia, at an elevation of 1,200 toises above the level of the sea. *Humboldt et Bonpland.* Woods near the town of Valdivia, Chili. *Bridges* (*n.* 776).—β. Taulia, Andes of Peru. *Mathews* (*n.* 1546).

Frutex 6—8 pedalis, facie *Ilicis aquifolii. Folia* opposita, ovalia, coriacea, glabra, nitida, (juniora subpubescentia), dentatim spinosa: in β. folia minora, spinæ breviores: omnia in *petiolum* brevem attennata. *Pedunculi* in ramis terminales, solitarii, unciam longi, uniflori, basi bibracteati. *Calyx* 5-partitus, laciniis oblongo-ovalibus, erectis, obtusis, dorso obscure striatis, marginibus ciliatis. *Corolla* sesquiuncialis, tubulosa, ore suboblique 5-lobo patulo, lobis rotundatis subæqualibus. *Stamina* 5 ad orem inserta, *antheris* oblongis sessilibus. *Germen* ovatum, superne pubescens: *Stylus* elongatus, inclusus: *stigma* obtusum.

The fruit I have not seen: nor am I able to say how far Mr. Don is correct in referring this Genus to *Gentianeæ*:—an order to which it bears assuredly no external similarity. The plant seems to have a very extensive range. The figure is made from Valdivian specimens.

Fig. 1. Flower. *f.* 2. Portion of the corolla, with the stamens. *f.* 3. pistil:—*magnified.*

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TAB. XXXIV.

Bryum (Pohlia) pellucens.

Elongatum cæspitosum ramosum, foliis patentibus linearibus acutis pellucidis reticulatis flexuosis carinatis integerrimis nervo gracili subcontinuo, capsula inclinata apophysata pyriformi demum subsulcata, operculo conico-rostrato.

Hab. In caves, Surrucucho, near Cuenca, Columbia. *Prof. Jameson.*

Caules cæspitosi, 2—3 pollicares, ramosi, dense foliosi. *Folia* patentia, flexuosa, linearia, integerrima, carinata, pellucida, reticulata, apice acuminata, siccitate nitidiuscula, flavo-virescentia. *Setæ* numerosæ, vix pollicem longæ, gracillimæ, fulva. *Capsula* paululum inclinata, pallide fuscescens, basi apophysata (una cum apophysi) fere exacte pyriformis. *Operculum* e basi conica sublonge rostratum. *Os* subcontractum. *Peristomium* duplex: *ext.* 16-dentatum, dentibus subulatis, siccitate inflexis:—*int.* (ut videtur) e dentibus 16 anguste subulatis, basi dilatatis.

It is not a little remarkable, that about the same time that Professor Jameson found this beautiful and delicate moss in South America, Mr. W. Wilson detected a species of the same genus in England, so much resembling it, that, except in its smaller size, narrower and more subulate, and not at all glossy leaves, it is hardly to be distinguished from it:—the *Bryum* (*Pohlia*) *gracile.* Wils. *in Gardn. Musc. Brit. t.* 34. *App.*

Fig. 1. Plant, *nat. size.* *f.* 2—5. Leaves. *f.* 6. Upper portion of a leaf (*more magnified*). *f.* 7. Capsule, with the operculum. *f.* 8. The same, the operculum being removed. *f.* 9. Portion of the peristome:—*magnified.*

TAB. XXXV.

Draba violacea.

Fruticosa, ramis foliosis, foliis sessilibus oblongo-ovalibus integerrimis incano-tomentosis, corymbis terminalibus sessilibus foliosis, floribus violaceis, siliculis ovato-oblongis in stylo longo attenuatis.

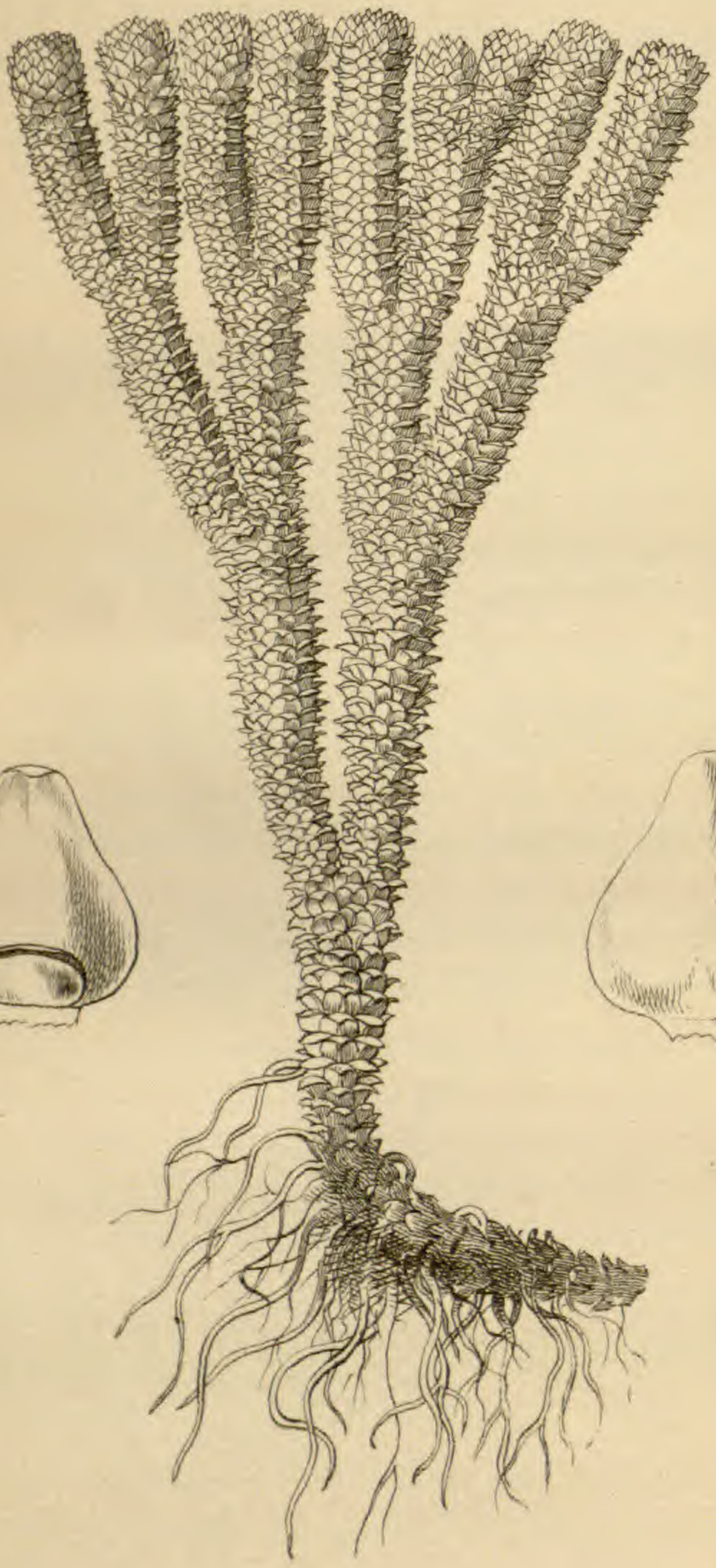
Draba violacea. *De Cand. Syst. Veget. v.* 2. *p.* 354. *Prodr. v.* 1. *p.* 171.

Draba Bonplandiana. *Humb. et Kunth, Nov. Gen. et Spec. Am. v.* 5. *p.* 78. *Syn. v.* 3. *p.* 139.

Hab. On Assuay, in the Quitinian Andes, at an elevation of 1,980 toises. *Humboldt.* On the same mountain, at a height of 14—15,000 feet; and near Cuenca. *Dr. Jameson.*

"This beautiful species," says Dr. Jameson to me, in his notes upon the specimens, "occurs on the ridge of Assuay, at an elevation of 15,000 feet. It is a small *shrub*, scarcely surpassing a foot in height, and grows in loose soil. The *flowers* are of a deep purple colour. It does not appear to be of common occurrence, having met with it but twice, viz. on Assuay, and on crossing the Andes on the road from Cuenca to Narausal." This would indeed be a most lovely plant to introduce to our gardens.

Fig. 1. Silicula :—*magnified.*



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TAB. XXXVI.

Lycopodium rufescens.

Caule erecto dichotome ramoso, ramis crassis obtusis, foliis cordatis patentibus arctissimis rigidis subsexfariam insertis supra planis subtus convexis, capsulis axillaribus.

Hab. On marshy ground, Puruchuco, near Cuenca. *Prof. W. Jameson.*

A remarkably robust, regularly dichotomous plant, with the *leaves* densely crowded and patent, of a brownish-red colour, exactly cordate: and in the axils of these leaves the *fructifications* are situated.

Fig. 1. Back view of a leaf. *f.* 2. Front view of do., with a capsule in the axil:—*magnified.*

Allan & Ferguson lithog.

TAB. XXXVII.

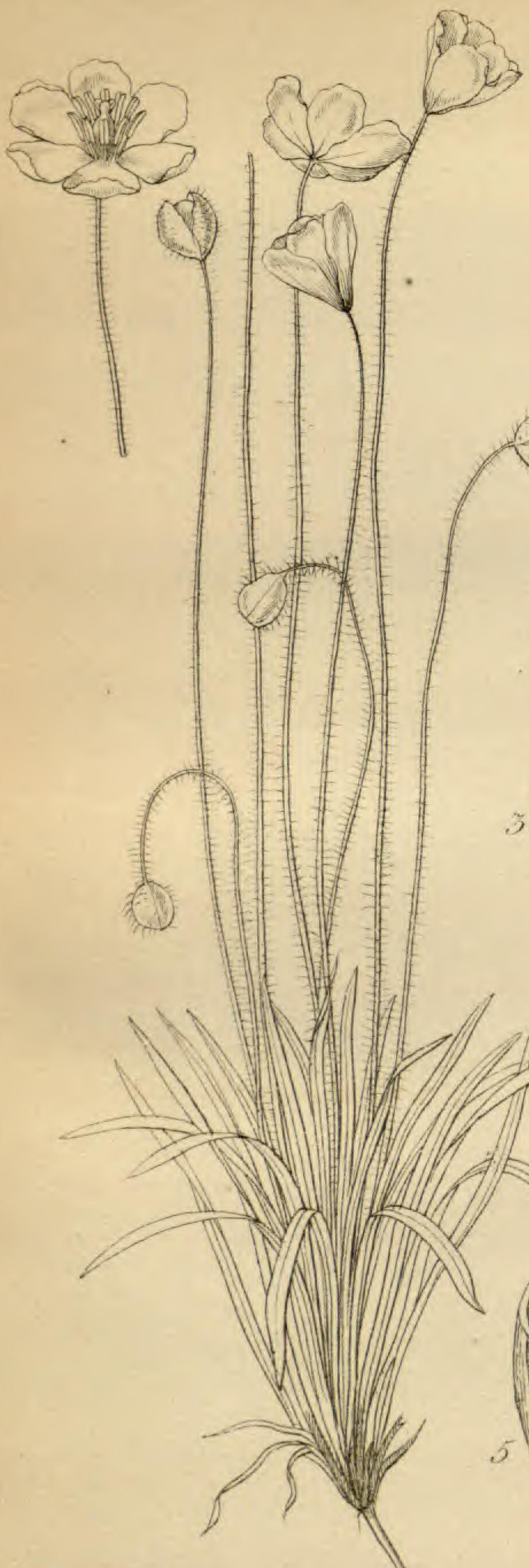
Dendromecon rigidum.

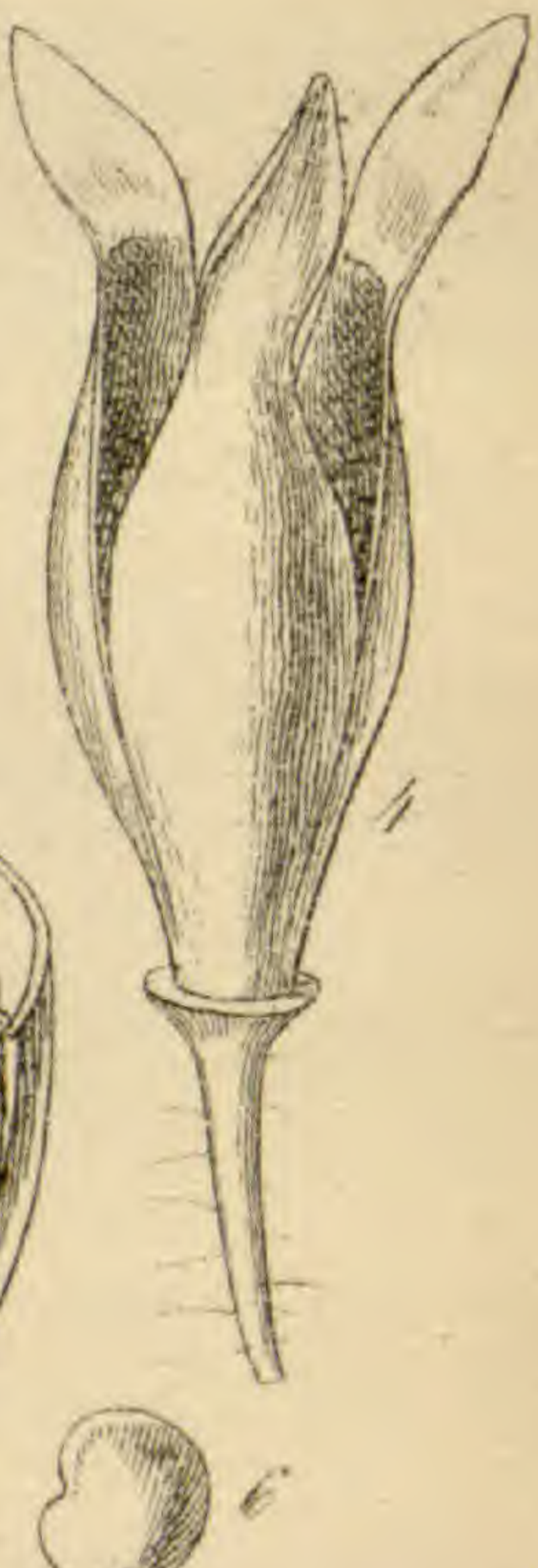
Dendromecon *rigidum*. *Benth. in Hort. Trans. v.* 1. *N. S. p.* 407.

Hab. Monterey, California. *Mr. Douglas.*

A Papaveraceous *shrub!* glabrous in every part, with evergreen, rigid, lanceolate, or ovato-lanceolate, pungent, reticulated *leaves*, articulated upon the stem. *Flowers* terminal, solitary. *Sepals* 2, hemisphærical, caducous. *Petals* 4, roundish-obovate, spreading. *Stamens* many. *Germen* cylindrical, narrower upwards. *Stigma* two-lobed. *Capsule* pod-shaped, furrowed, one-celled, two-valved. *Seeds* several, pyriform, attached to two filiform, parietal receptacles.

Fig. 1. Stamen. *f.* 2. Pistil. *f.* 3. Section of the germen. *f.* 4. Seed. *f.* 5. Base of a leaf, to show its articulation upon the stem :—*magnified.*





TAB. XXXVIII.

Platystigma lineare.

Platystigma *lineare*. *Benth. in Hort. Trans. v.* 1. *N. S. p.* 407.
Hab. Monterey, California. *Mr. Douglas.*

This is another curious new Papaveraceous genus, discovered by Mr. Douglas. It is a small annual plant, with radical, linear, glabrous, entire *leaves*. *Scapes* several from the same root, erect, a span high, clothed with spreading hairs, single-flowered. *Sepals* 2—3, concave, hairy. *Petals* pale yellow, 4—6. *Filaments* filiform. *Germen* oval, contracted at the base. *Stigmas* 3, sessile, oval, spreading. *Capsule* one-celled, three-valved, having three filiform *receptacles* at the sutures. *Seeds* smooth, shining, roundish kidney-shaped.

Fig. 1. Unexpanded flower, with the calyx. *f.* 2. Stamen. *f.* 3. Pistil. *f.* 4. Capsule. *f.* 5. Section of do. *f.* 6. Seed: —*magnified.*

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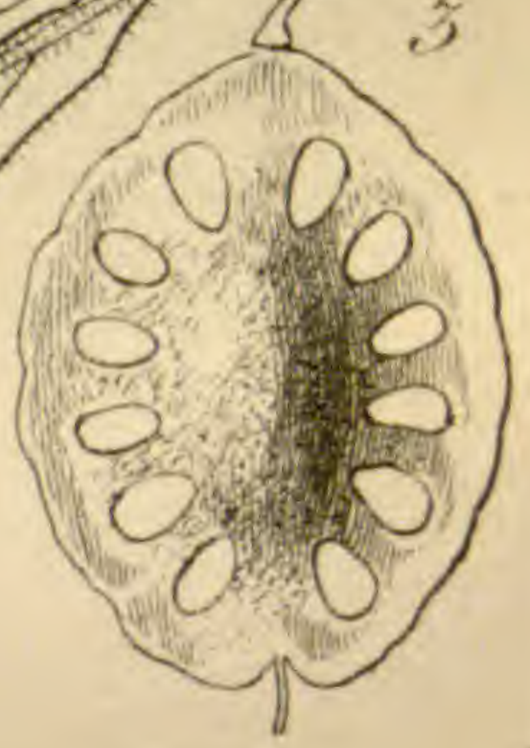

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TAB. XXXIX.

THYSANOCARPUS ELEGANS. β.

Thysanocarpus *elegans;* calyce petalis vix duplo breviore, siliculis orbiculari-ovalibus membranaceo-alatis, alis foraminibus plurimis pertusis apice emarginatis, stylo sinus duplo superante.

α. Siliculis glabris. *T. elegans. Fisch. et Mey. Ind. Semin. Hort. Petrop. p.* 56.

β. Siliculæ disco dense tomentoso. (Tab. Nostr. xxxix.)

HAB. Monterey, California. *Mr. Douglas.*

A highly curious plant in the structure of its *seed-vessels*, and the handsomest of the genus, of which six species are now known to us, all natives of California. It seems to agree with Fischer and Meyer's *T. elegans*, in every thing save the glabrous fruit. It is an annual plant, one and a half to two feet high, with the lower *leaves* sinuato-dentate, and hairy, the upper ones glabrous, entire, sagittate at the base; *racemes* of *fruit* 8—10 inches long. *Pouches* pendulous, margined with a broad waved wing, in which is a range of large oblong perforations, surrounding the woolly disk. These perforations do not exist in the germen.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Pouch :— *magnified.*

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TAB. XL.

STREPTANTHUS GLANDULOSUS.

Streptanthus *glandulosus;* inferne piloso-hispidus, foliis linearioblongis dentato-subpinnatifidis dentibus glandulosis, radicalibus petiolatis, caulinis profunde sagittatis amplexicaulibus, floribus erecto-patentibus (purpureis) secundis, siliquis patentibus curvatis valvis uninervibus reticulatis.

HAB. Monterey, California. *Mr. Douglas.*

Quite distinct from the hitherto described species of this genus. The lower part of the plant is always more or less hispid: the lowest *leaves* (which are often withered) pinnatifid, the teeth terminated by a gland. The *flowers* never droop, when in perfection. Two of the longer *stamens* are combined for nearly their whole length. The *siliqua* is always curved and glabrous.

Fig. 1. Flower. *f.* 2. Stamens and pistil:—*magnified.*

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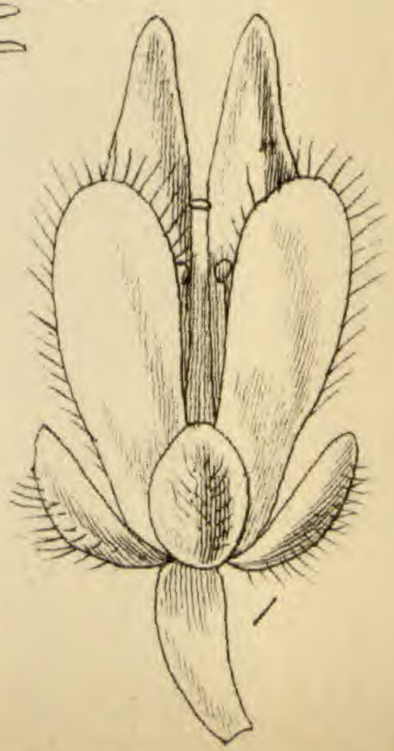

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TAB. XLI.

LEPIDIUM LATIPES.

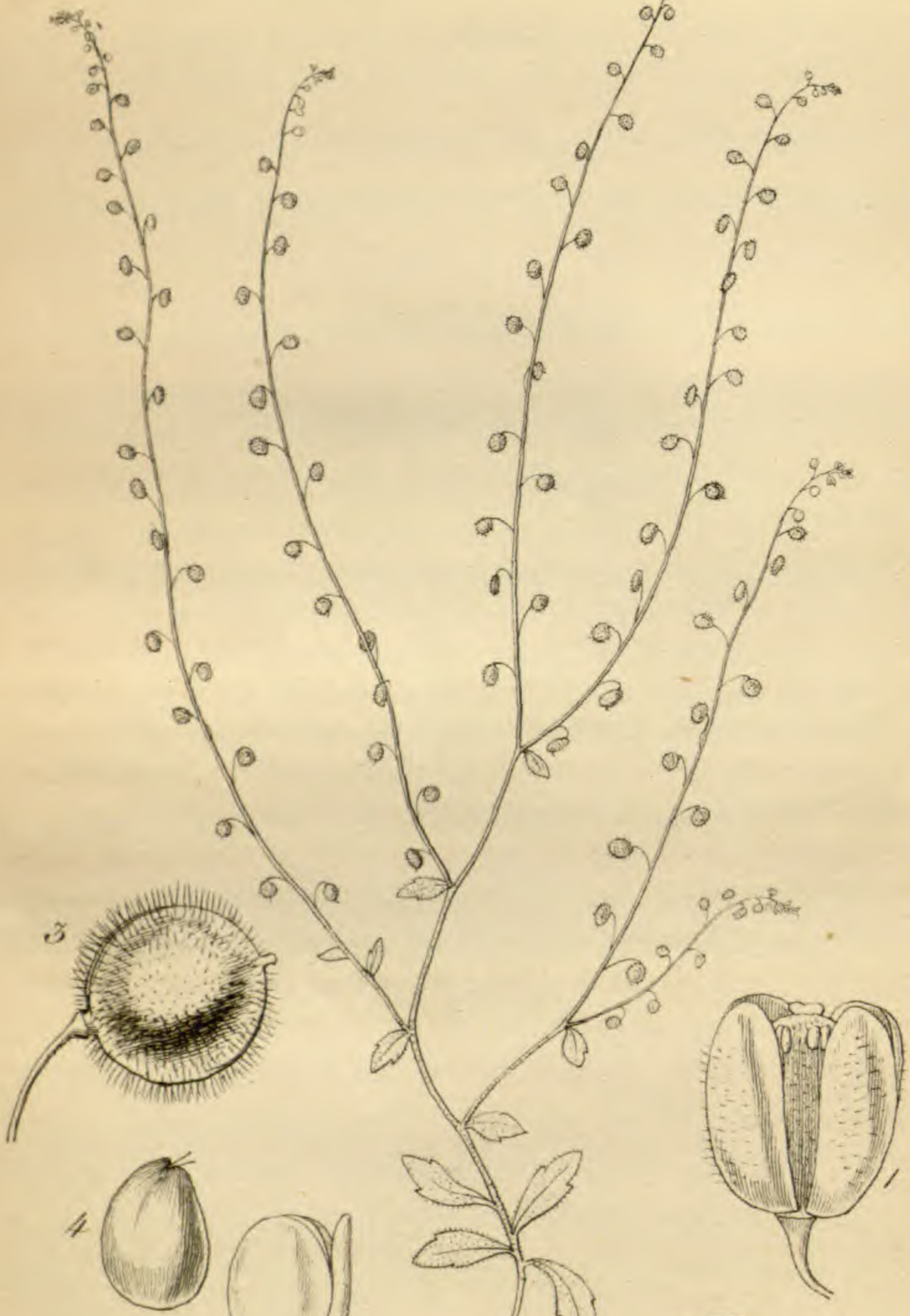
Humifusum, cæspitosum, foliis linearibus bipinnatifidis, floribus densissime corymbosis, pedicellis latissimis planis, siliculis ellipticis reticulatis hirsutis antice bialatis alis rectis longitudine siliculorum, stigmate sessili.

HAB. Monterey, California. *Mr. Douglas.*

Annua, dense cæspitosa. *Corymbi* numerosi, multiflori. *Flores* parvi. *Pedicelli* latissimi, compressi, demum reflexi. *Sepala* parva, patentia, elliptica, hispida. *Petala* oblonga, erecta, ciliata. *Siliculæ* copiosæ, apice alatæ, bifidæ.

This is quite distinct from any *Lepidium* with which I am acquainted, both in the shape of the silicula and nature of the pedicel. *Corymbs* shorter than the leaves, so loaded with *flowers* that they seem to constitute capitula rather than corymbs.

Fig. 1. Flower. *f.* 2. Silicula, with its pedicel. *f.* 3. Seed: —*magnified.*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TAB. XLII.

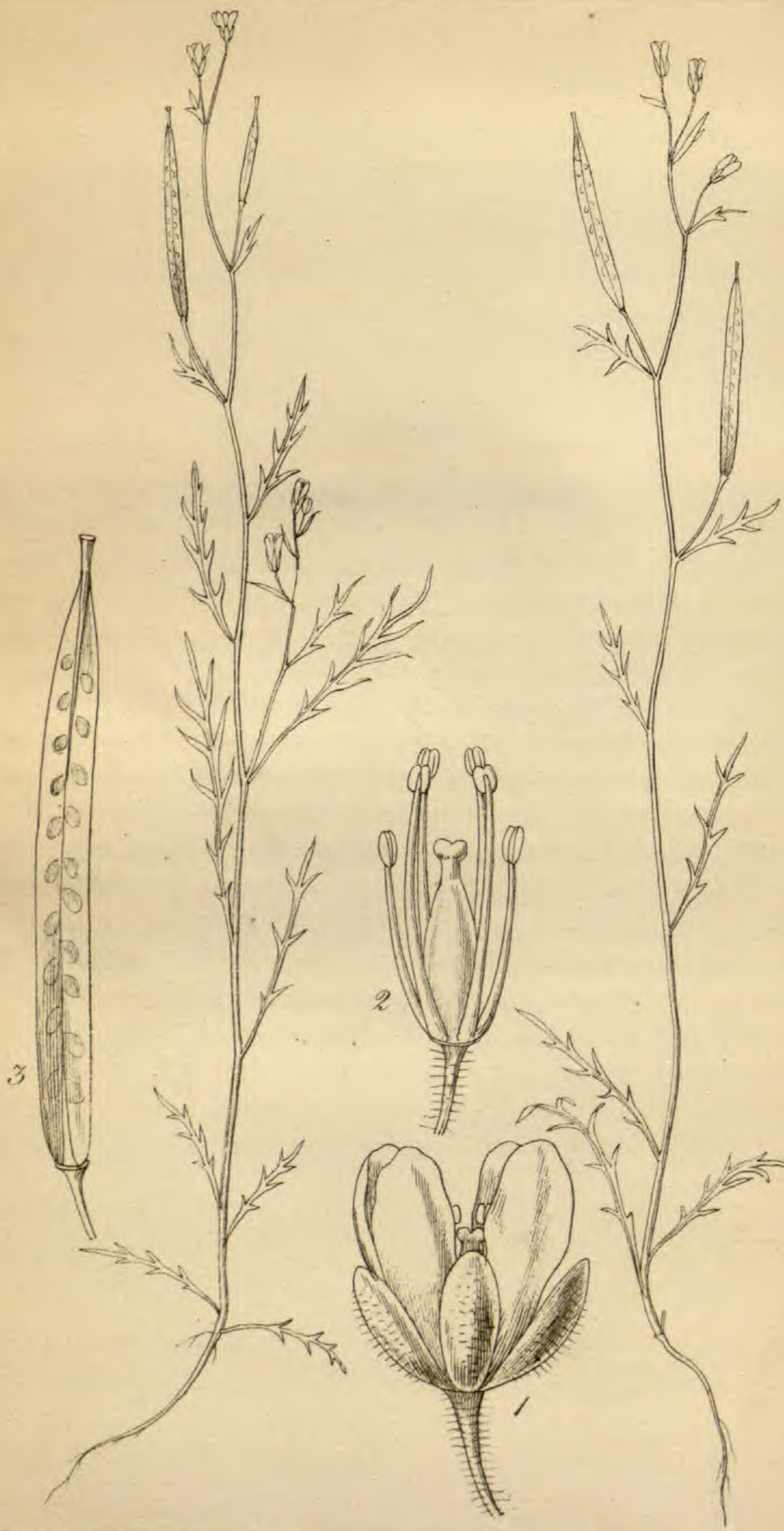
THYSANOCARPUS PUSILLUS.

Nanus, pubescenti-hirtus, siliculis orbicularibus vix alatis pilis patentibus apice uncinatis undique tectis, floribus minutissimis apetalis.

HAB. Monterey, California. *Mr. Douglas.*

Planta pusilla, annua, florente vix unciam longa, fructificante 4—5 pollicaris, ramosa. *Folia* perpauca, oblonga, dentata. *Racemi* demum valde elongati. *Flores* minutissimi, apetali (an semper ?). *Stamina* libera. *Germen* orbiculari-ovale, pubescens: *Stigma* sessile. *Siliculæ* magnitudine seminum *Lini usitatissimi*, deflexæ, orbiculares, planæ, pilis patentibus apice uncinatis obsitæ.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Silicula. *f.* 4. Seed. *f.* 5. Embryo. *f.* 6. Hairs from the fruit :—*magnified.*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TAB. XLIII.

TROPIDOCARPUM GRACILE.

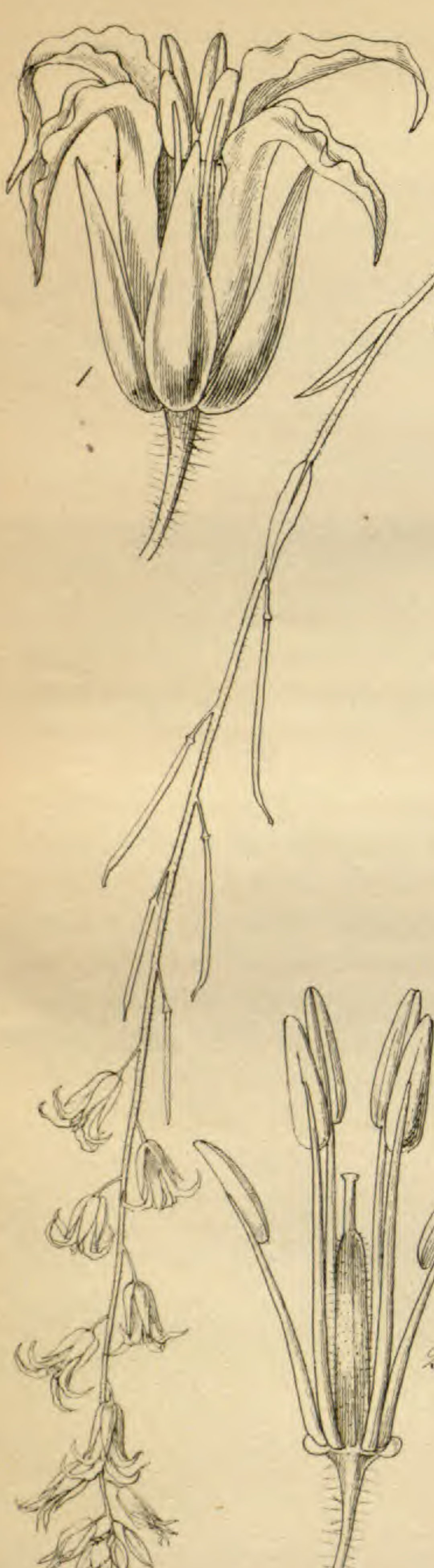
CHAR. GEN. *Sepala* oblonga, concava, basi æqualia. *Petala* obovato-subspathulata. *Filamenta* nuda: *Antheræ* subrotundæ. *Germen* oblongum, in stylum attenuatum. *Stigma* obtusum. *Siliqua* lateraliter compressa, sessilis, polysperma, valvis acute carinatis. *Dissepimentum* nullum!—Herbæ *parvæ, annuæ.* Folia *pinnatifida.* Racemi *foliosi.* Flores *parvi, albi.* Siliquæ *erectæ, nunc breves, subsiliculosæ.*

T. gracile: annuum, parvum, glabriusculum, foliis linearibus pinnatifidis segmentis acutis, racemis foliosis, pistillo petalis staminibusque breviore, siliqua lineari glabra.

HAB. Monterey, California. *Mr. Douglas.*

The leafy *racemes* (giving the appearance of axillary 1-flowered peduncles) and the singularly *laterally* compressed *siliquæ*, seem to mark this plant as a new genus of the order *Cruciferæ.* But the fruit, on the only specimens I possess, is quite immature. A second species will be given at Tab. 52, *L. scabriusculum*, in which the fruit is a little more advanced; and in that, as well as in the present instance, I find no dissepiment. If this character is constant, it affords another mark of distinction.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Immature siliqua:—*magnified.*



Allan & Ferguson lithog.

TAB. XLIV.

STREPTANTHUS FLAVESCENS.

Pilosus, foliis lineari-oblongis inferioribus petiolatis sinuato-pinnatifidis dentibus glandulosis caulinis sessilibus integerrimis, floribus erectis (flavescentibus), petalis linearibus acutis, siliquis (immaturis) erectis hirsutis.

HAB. Monterey, California. *Mr. Douglas.*

This is remarkable for its yellow *flowers*, all the other known species of the genus having purplish ones: the *anthers*, however, have a purple tinge. Its nearest affinity is with *S. glandulosus*, but here the cauline leaves are by no means sagittate nor amplexicaul. The *filaments* of the *stamens* are all free.

Fig. 1. Flower. *f.* 2. Stamens and pistil:—*magnified.*

Allan & Ferguson lithog

TAB. XLV.

Leucolæna peltigera.

Foliis reniforni-lunatis grosse dentatis, involucri involucellique segmentis lineari-subulatis striatis, lobis calycinis peltatis! petalis spathulatis intus carinatis.

Hab. King George's Sound, N. Holland. *Mr. Fraser.*

In the curious *Leucolæna* (*Xanthosia, DC.*) *rotundifolia*, about to be published in the Bot. Mag., the calycine lobes are thick and fleshy, ovate and fixed by a very small point at the base:— but here they constitute 5 large, peltate, fleshy scales, to which I know nothing similar in the whole order of *Umbelliferæ*. The species itself is probably very rare. The whole plant is glabrous and glaucous. *Root* perennial. *Stems* about a foot high. *Involucels* deeply divided into 3 unilateral segments.

Fig. 1. Flower. *f.* 2. Calycine lobe. *f.* 3. Outer view of a petal. *f.* 4. Inner view of do. *f.* 5. Scarcely mature fruit:— *magnified.*

Allan & Ferguson lith.

TAB. XLVI.

Rubus rosæflorus.

Ramis petiolis pedunculis nervisque subtus pubescenti-hirsutis aculeatisque, foliis ternatis foliolis ovatis duplicato-serratis utrinque glabris terminali longe petiolato, stipulis magnis cordatis, panicula laxe pauciflora, sepalis magnis adpresso-sericeis ovalis longe acuminatis inciso-pinnatifidis corolla subduplo longioribus.

Hab. Woods on the western declivity of Pichincha, at an elevation 9,000 feet. *Professor W. Jameson.*

A distinct and well marked species of a most difficult genus. Professor Jameson observes that the *fruit* is very large, but insipid. In my only specimen, the *peduncle* is branched, about 3-flowered. *Bracteas*, similar to the stipules, arise from the setting on of the branches.

Allan & Ferguson lithog.

TAB. XLVII.

Cheiranthera linearis.

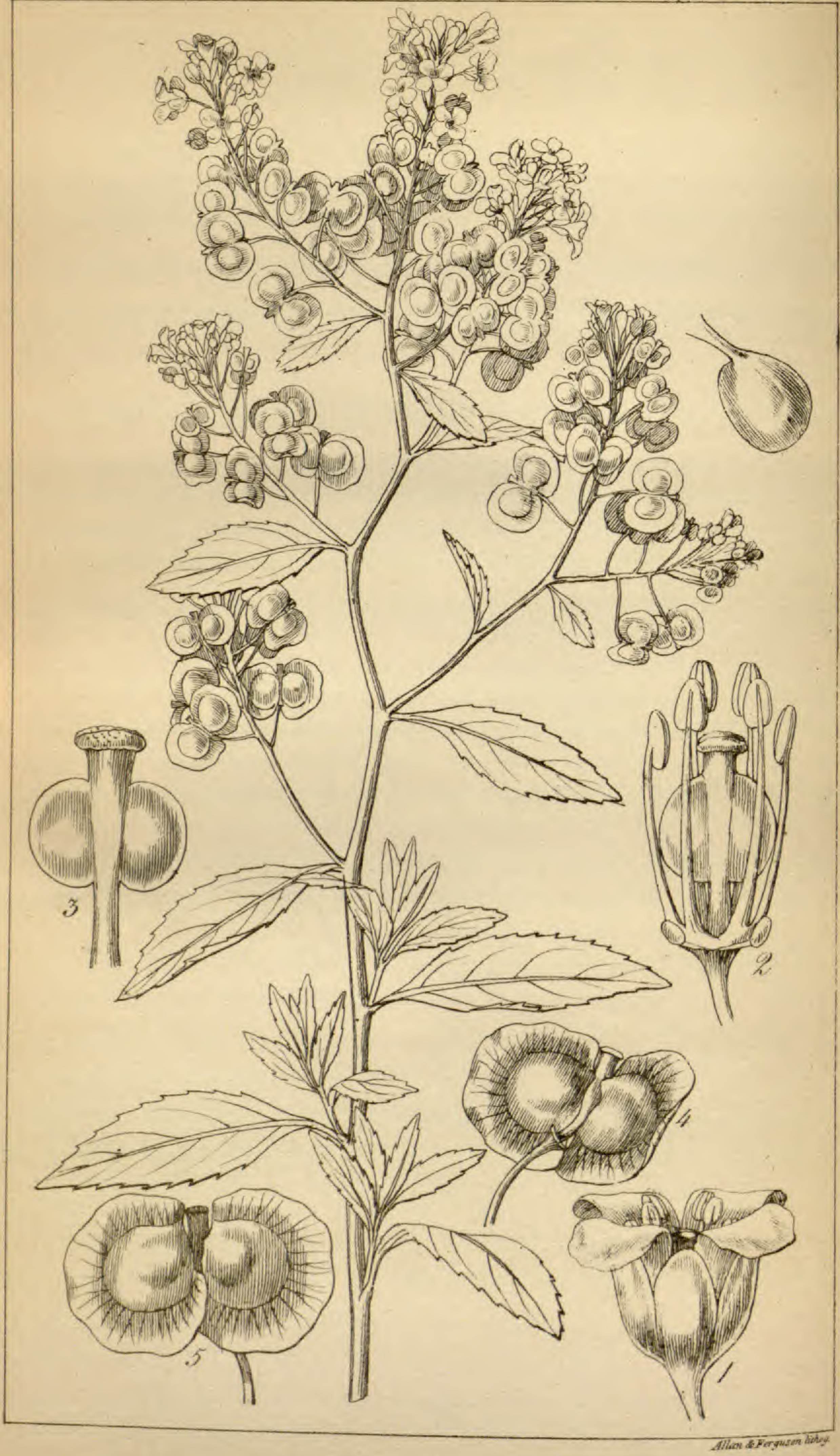
Gen. Char. Cheiranthera. *Allan Cunn.*—*Sepala* 5, acuminata. *Corolla* crateriformis, *petalis* 5; unguibus distantibus. *Stamina* 5, erecta, pistillo breviora; *antheris* liberis, linearibus, secundis, poris apicis dehiscentibus. *Ovarium* declinatum, bilocu-lare, polyspermum. *Pericarpium* siccum, indehiscens, ventri-cosum, pulpa nulla obducta.—Frutex *erectus* (*Australasicus*); foliis *linearibus, integris, subfasciculatis*; floribus *cæruleis corymbosis erectis. Lindl.*

Cheiranthera *linearis. All. Cunn. in Bot. Reg. sub fol.* 1719.

Hab. Bushy forest country, at the foot of Croker range, west of Wellington valley: also frequent near Bathurst, N. S. Wales. *Allan Cunningham, Esq.* South-west interior of New Holland. *Capt. Sturt.*

This is said, in the work above quoted, to be one of "the most beautiful plants in all the Flora of New Holland." It forms a *shrub*, with twiggy *branches*. Its *flowers* are bright blue, and remarkable for the inclination to one side of all their stamens, thus somewhat resembling the fingers of the human hand, whence the generic name. It belongs to the Natural Order *Pittosporeæ*.

Fig. 1. Flower. *f.* 2. Capsule. *f.* 3. Section of do.:—*magnified.*



Allan & Ferguson lithog.

TAB. XLVIII.

Cremolobus Peruvianus.

Suffruticosus, glaber, foliis oblongo-ovatis serratis, racemis axillaribus terminalibusque, siliculæ glabræ loculis lato-marginatis, stylo brevissimo.

Cremolobus Peruvianus. *De Cand. Syst. Veget. v.* 2. *p.* 419. *Prodr. v.* 1. *p.* 184.

Biscutella Peruviana. *Lam. Dict. v.* 3. *p.* 620. *De Cand. Diss. de Bisc. n.* 6. *t.* 4.

Hab. Western descent of Pichincha, Quitinian Andes, at an elevation of 13,000 feet above the level of the sea. Flowers fragrant. *Prof. Wm. Jameson.*

The genera *Biscutella*, *Megacarpæa*, and *Cremolobus*, are, it must be confessed, very closely allied, and established as genera on very slight tangible characters. The present genus, however, has a peculiar habit, and is exclusively a native of Columbia, Peru, and Chili; chiefly, or I believe entirely, of the range of the Cordillera.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Pistil. *f.* 4, 5. Anterior and posterior view of the silicula. *f.* 6. Seed: —*magnified.*

Allan & Ferguson lithog.

TAB. XLIX.

VIOLA CHRYSANTHA.

Caulescens, foliis petiolatis glabris bipinnatifidis segmentis linearibus acutis, calycibus ciliatis basi vix productis, corolla ecalcarata.

HAB. Monterey, in California. *Mr. Douglas.*

Caules 2—5 ex eadem radice, graciles, apice foliosi. *Folia* sublonge petiolata, bipinnatifida, glabra, segmentis linearibus seu lanceolato-linearibus, acutis. *Stipulæ* lanceolatæ, acutæ, integræ. *Pedunculi* foliis longiores, bibracteati; *bracteæ* parvæ, sæpe distantes, lanceolato-subulatæ. *Flos* aureus. *Calyx* vix basi productus: laciniis ovato-lanceolatis, acutis, marginibus ciliatis. *Petalum inferius* spathulatum, basi non calcaratum. *Stylus* clavatus, curvatus: *Stigma* obtusum, incurvum, ciliatum.

Figs. 1, 2. Side and front view of a flower. *f.* 3. Lower petal. *f.* 4. Stamens and pistil. *f.* 5. Pistil:—*magnified.*

Allan & Ferguson lithog.

TAB. L.

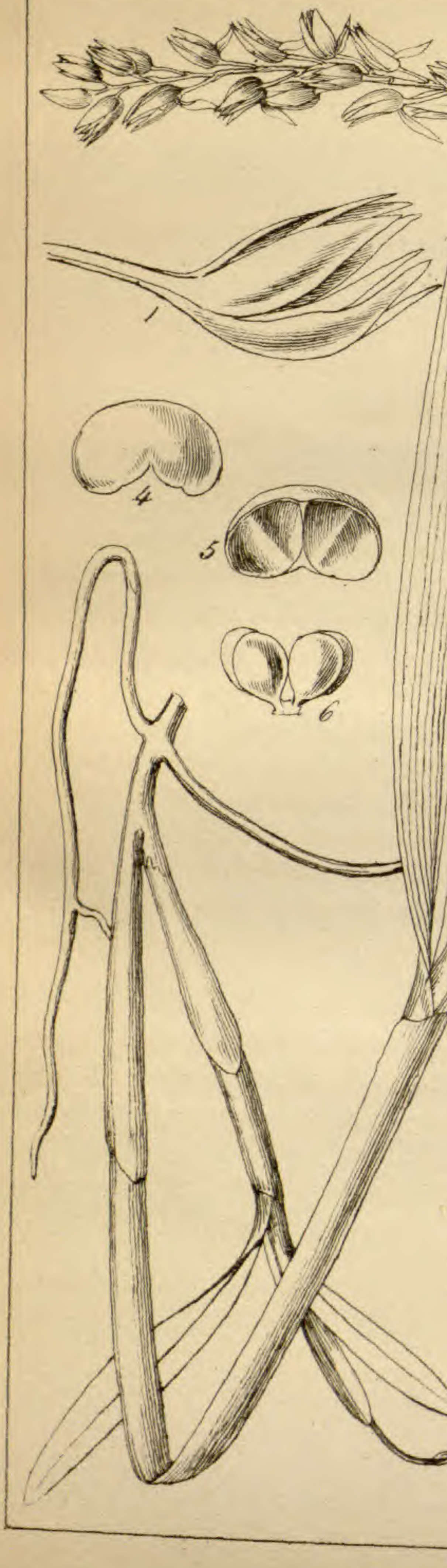
Pleurothallis cauliflora.

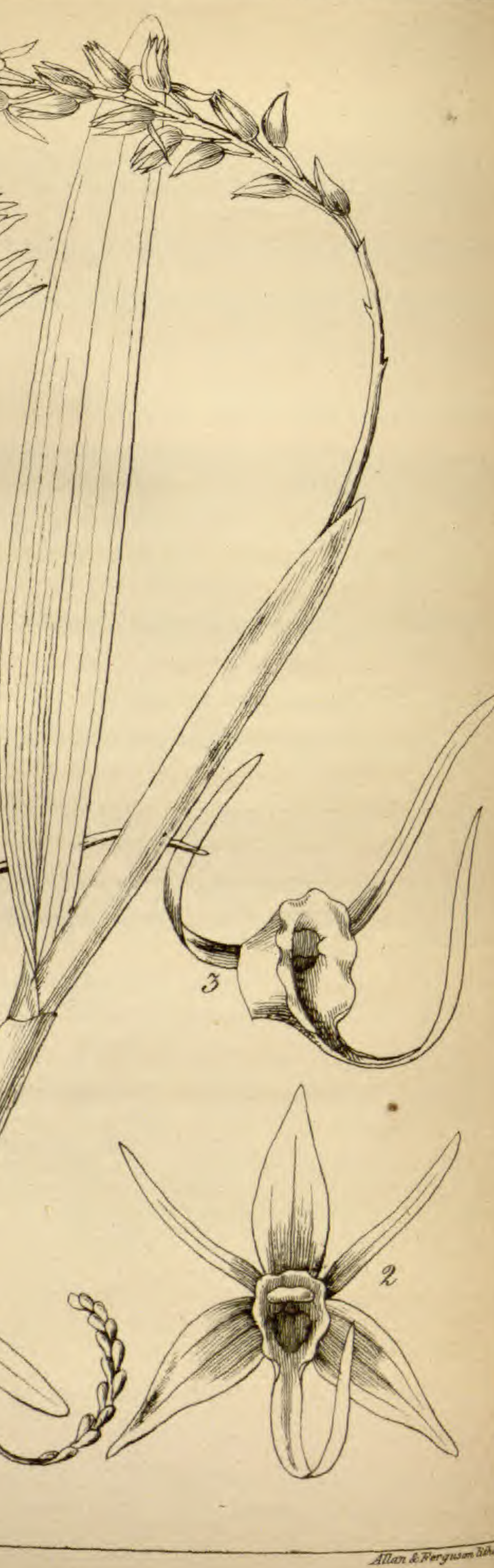
Caule erecto striato medio squama solitaria vaginante, folio late ovali, spicis 1—4 infra folium ortis basi spathaceis, floribus secundis, sepalis ovatis lateralibus fere ad apicem connatis, petalis parvis, labello rotundato marginibus inflexis.

Hab. On trunks of trees near Lloa, western declivity of Pichincha. *Prof. W. Jameson.*

This is one of the many extremely beautiful epiphytes, with which I have been favoured by Professor W. Jameson, from the environs of Quito. It is amongst the largest of the genus; the stem has, near the middle, a single long, sheathing scale; and the spikes arise from a spatha, not from the base of the leaf, as is usual in the genus, but from the stem, at a little distance below the leaf.

Fig. 1. Front view of a flower. *f.* 2. View of upper side. *f.* 3. A flower from which the 2 lateral (combined) sepals are removed, and the lip is bent down. *f.* 4. The same, with the lip in its natural position. *f.* 5. Pollen-mass :—*magnified.*





Allan & Ferguson lithog.

TAB. LI.

Stenoglossum subulatum, *Lindl.*

Labello petalisque subulatis, sepalis ovato-lanceolatis 3-veniis.

Lindl. MS.

Herb. On trees near Pichilagua, on the western declivity of Pichincha. *Prof. W. Jameson.*

Caulis spithamæus, inferne ramosus, compressus, vaginatus, apice uni-bifoliatus; *foliis* lineari-oblongis, obscure striatis, crassiusculis. *Pedunculus* solitarius, terminalis, fere spithamæus, inferne vaginam longam tectus. *Spica* elongata, multiflora. *Flores* resupinati. *Perianthium* connivens. *Sepala* ovato-lanceolata, acuminata, 3-nervia. *Petala* labellumque lineari-subulata. *Columna* urceolata, inferne cum labello connata. *Anthera* reniformis, 4-locularis. *Pollinia* 4, libera, basi solummodo glandula unita.

Fig. 1. Flower. *f.* 2. Front view of a flower spread open. *f.* 3. Column combined with the lip and the 2 petals. *f.* 5. Do. seen from beneath. *f.* 6. Pollen-masses:—*magnified.*

Allan & Ferguson delin.

TAB. LII.

TROPIDOCARPUM SCABRIUSCULUM.

Annuum ramosum pubescenti-scabrum, foliis lanceolatis profunde pinnatifidis inferioribus bipinnatifidis, racemis foliosis, pistillo petalis staminibusque longiore, siliqua (immatura) lanceolata scabra.

HAB. Montérey, California. *Mr. Douglas.*

Radix annua, parva. *Caulis* 8-10 uncias longus, erectus, ramosus, foliosus. *Folia* circumscriptione lanceolata; *inferiora* bipinnatifida; *reliqua* pinnatifida, segmentis lineari-lanceolatis, acutis. *Racemi* terminales, foliosi. *Pedicelli* calycesque patentim pilosi. *Stamina* pistillo breviora. *Germen* lato-lanceolatum, in stylum longiusculum exsertum attenuatum. *Siliqua* (immatura) lineari-lanceolata, pubescenti-scabra. *Dissepimentum* nullum.

Another species of this Genus has been figured at TAB. XLIII. of this work.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Immature siliqua. *f.* 4. The same cut through transversely:—*magnified.*

Allan & Ferguson sculp.

TAB. LIII.

Drosera Menziesii.

Caule erecto flexuoso filiformi parce piloso, foliis ternatim fasciculatis peltatis orbiculatis, racemo terminali bifloro, calycibus appresse pilosis ciliato-glandulosis.

Drosera Menziesii. *Br. in De Cand. Prodr. v.* 1. *p.* 319. *Hook. Comp. to Bot. Mag. v.* 1. *p.* 274.

Hab. Swan Port, on the E. Coast of Van Dieman's Land, *Mr. Backhouse.* Communicated by *Mr. Gunn* (*n.* 449).

This is probably a rare species. I possess only the single specimen here represented. The leaves are fasciculate: 3, rarely 2, spring from one point of the stem; and these are on long slender petioles, exactly orbicular, clothed on the upper side and at the margins with the long glandular hairs so usual in the genus. The stem is slightly hairy, especially towards the upper part, but these hairs are tipped with very indistinct glands. The calyx is clothed with appressed almost silky hairs, and fringed with long glandular ones.

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Allan & Ferguson lithog.

TAB. LIV.

Drosera lunata.

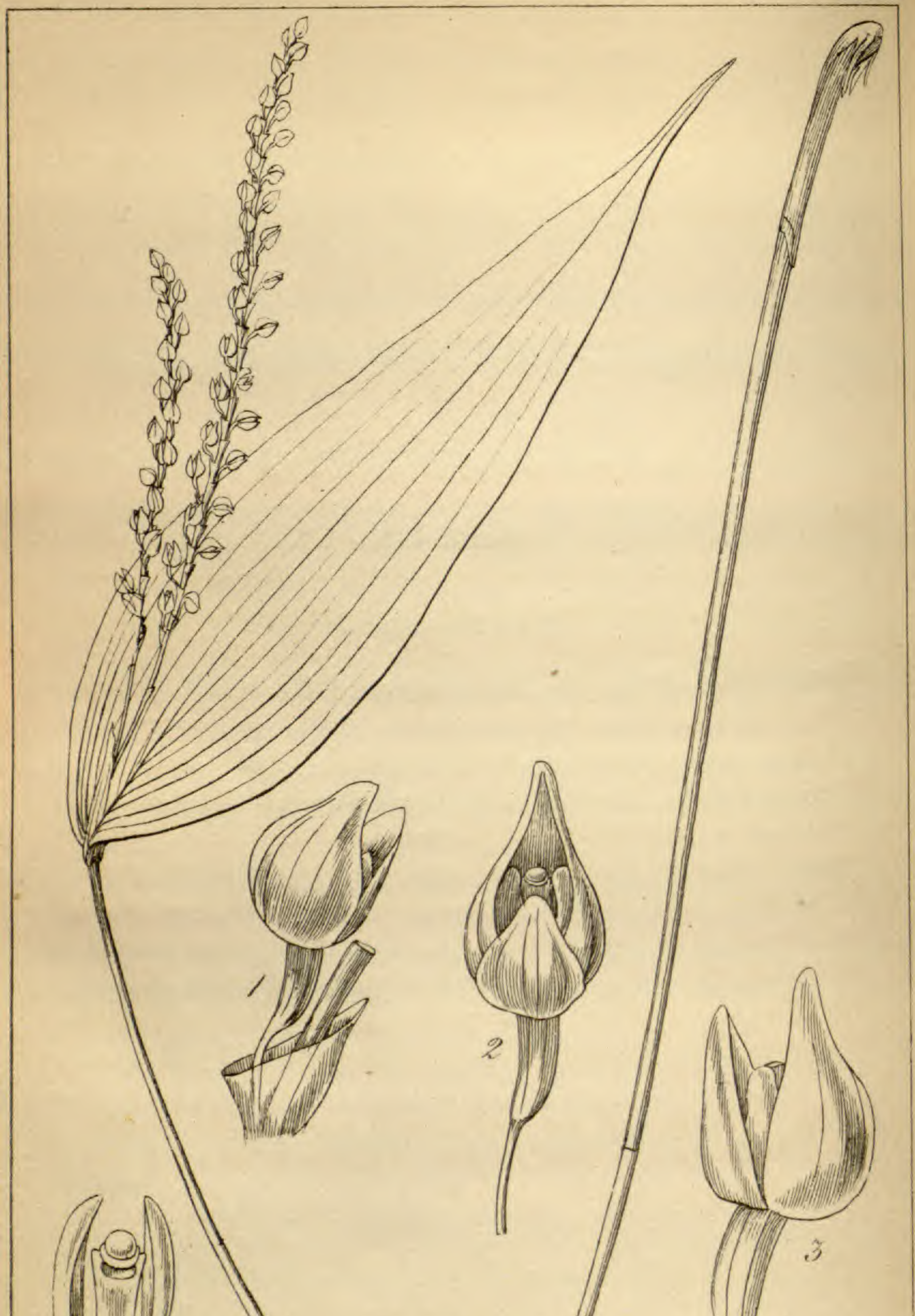
Caule erecto glabro simplici v. ramoso, foliis alternis rarius fasciculatis, caulinis lunatis peltatis, radicalibus reniformi-cordatis non peltatis, racemo terminali, calycibus glabris.

Drosera lunata. *Buchan. in De Cand. Prodr. v.* 1, *p.* 319. *Hook. Comp. to Bot. Mag. v.* 1. *p.* 274.

Hab. Van Dieman's Land. *Mr. Gunn* (*n.* 350).

It is probable, could we see the two plants in a recent state, that characters would appear by which this might be specifically distinguished from the E. Indian *D. lunata.* My specimens from Nepal, given me by Dr. Wallich, are much smaller and proportionally slenderer with leaves and flowers not half the size. The perfect specimens of our plant are furnished with a tuber at the root like that of *Bunium flexuosum.*

Fig. 1. Stem-leaf. *f.* 2. Root-leaf:—*magnified.*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TAB. LV.

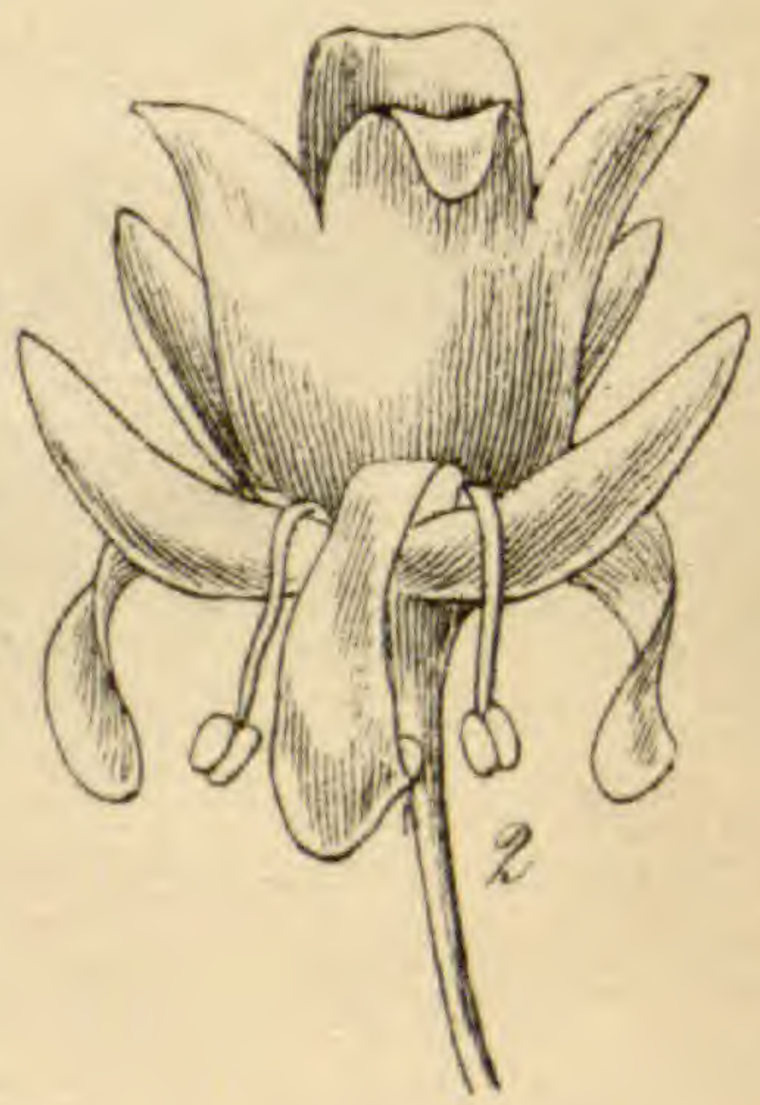
Pleurothallis truncata, *Lindl.*

Folio ovato-lanceolato acuminato racemis geminis æquali, caule pluries longiore, sepalis lateralibus in unum ovatum connatis superiore cucullato duplo minoribus, petalis linearioblongis, labello truncato involuto. *Lindl. MS.*

Hab. Trees in woods, west side of Pichincha. Flowers orange-coloured. *Prof. W. Jameson.*

Caulis erectus, strictus, teres, vaginatus, fere pedalis, folio ovato-lanceolato, striato, duplo breviore terminatus. *Racemi* gemini folii longitudine, breviuscule pedunculati. *Bracteæ* membranaceæ, convolutæ, ovario breviores. *Flores* parvi. *Perianthium* subclausum. *Sepalum* superius ovatum, magnum, cucullatum, 2 lateralia in unum superiore duplo minus unitum. *Petala* lineari-oblonga, longitudine columnæ apteræ. *Anthera* hemispherica: *Pollinia* 2. *Labellum* petalis subduplo brevius, latum, insigniter truncatum, lateribus involutis.

Fig. 1. Portion of the rachis, with a flower and bractea. *f.* 2. Front view of a flower. *f.* 3. Side view of do. *f.* 4. Petals, column, and lip:—*magnified.*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TAB. LVI.

Drosera Arcturi.

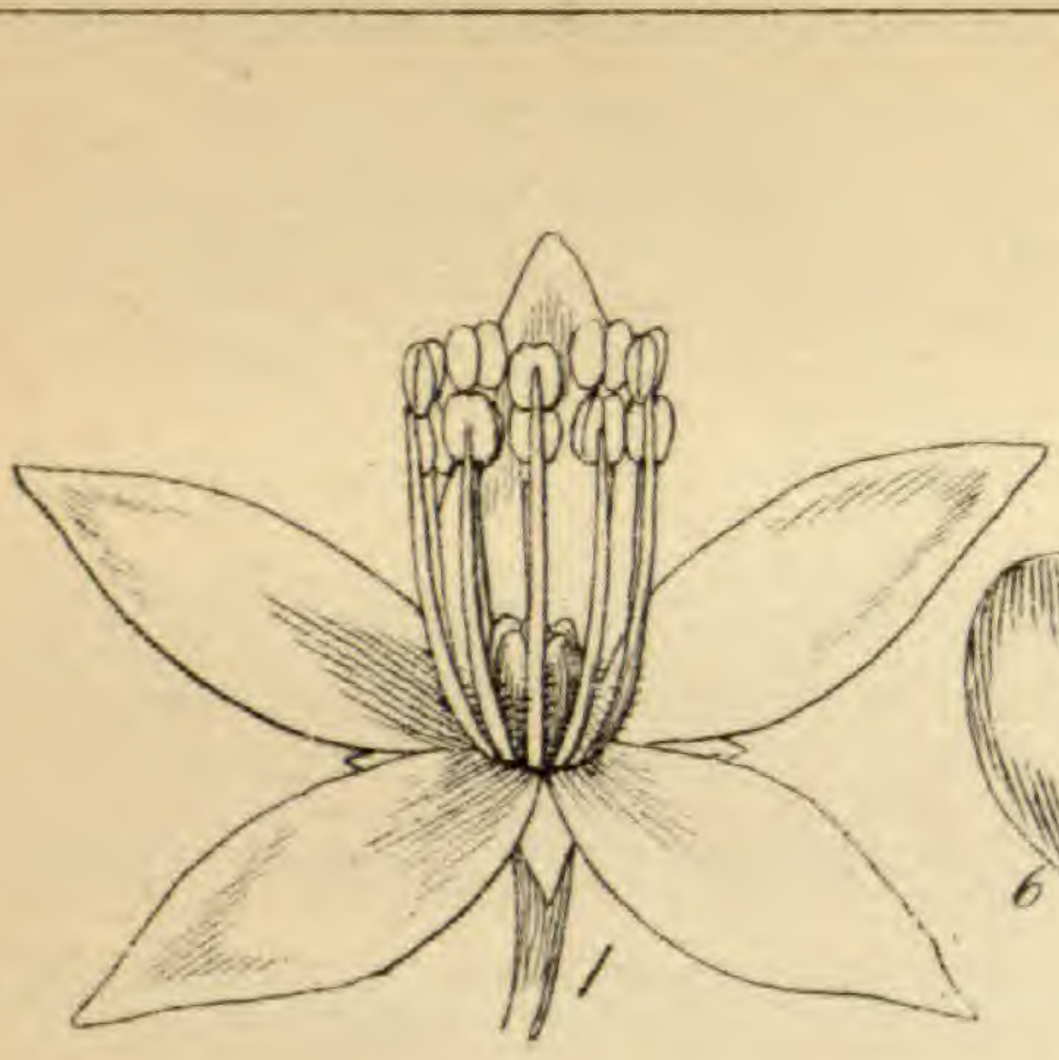
Acaulis, foliis lineari-spathulatis scapo unifloro brevioribus, calyce glaberrimo petalis vix breviore.

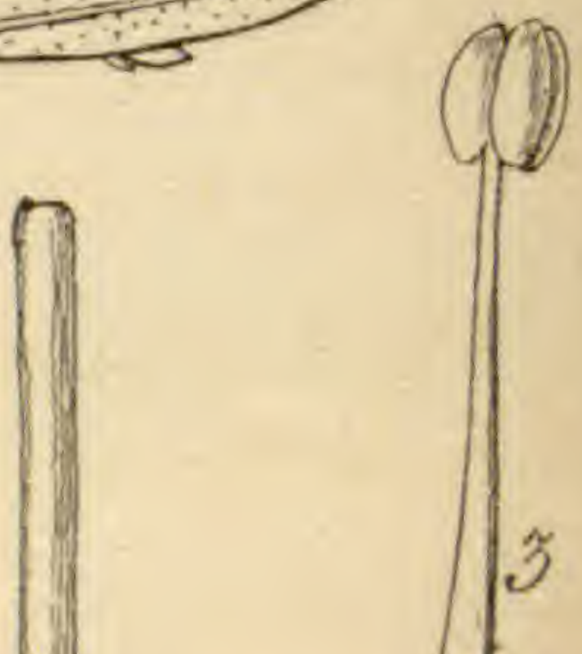
Drosera Arcturi. *Hook. Bot. Journ. p.* 247.

Hab. Summit of Mount Arthur, Van Dieman's Land, *Mr. Gunn* (*n.* 139).

A most distinct species of a highly curious and beautiful Genus, found by no one that I am aware of, except my valued correspondent above mentioned. The leaves are not unlike those of some of our European *Droseræ*, but the large solitary flower will at once distinguish it from every other species.

Fig. 1. Flower. *f.* 2. Seed-vessel:—*magnified.*





TAB. LVII.

PHEBALIUM RETUSUM.

Foliis oblongo-lanceolatis apice retusis supra nitidis punctatis subtus argenteo-lepidotis, pedunculis axillaribus brevibus 2—3-floris, filamentis basi pubescentibus.

Phebalium retusum. *Hook. Bot. Journ. p.* 254. *Comp. to Bot. Mag. v.* 1. *p.* 276.

HAB. Van Dieman's Land, *Mr. Scott, Mr. Lawrence, Mr. Gunn* (*n.* 455).

A glossy shrub, having its rigid leaves clothed with silvery scales on the underside, which give it the appearance of an *Elæagnus.* It is quite different from the *P. Billardieri,* Adr. de Juss. (*Eriostemon squameum,* Labill.) a native of the same island (*n.* 454 of Mr. Gunn's collections).—Each fruit consists of 5 carpels, united at the base; 2 or 3 being frequently abortive. The perfect ones are wrinkled; they burst open into two valves by a longitudinal fissure and exhibit an ovate seed, situated within an ovate 2-valved arillus, to which it is attached by a short and broad podosperm.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Stamens. *f.* 4. Fruit. *f.* 5. Arillus, including the seed. *f.* 6. Seed :—*magnified.*

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Gunnianæ. N. O. Cruciferæ.

Tab. LVIII.

Cardamine heterophylla.

Glabra, foliis *radicalibus* sublonge petiolatis, extimis cordatis integris integerrimis, reliquis pinnatisectis segmentis remotis ovato-cordatis perpaucis sinuato-dentatis terminali maximo, *caulinis* 1—2 pinnatifidis laciniis linearibus, corymbis paucifloris, siliquis erectis linearibus gracillimis, stigmate sessili.

Hab. Van Dieman's Land. *Mr. Gunn* (*n.* 446).

This is a species quite distinct from any with which I am acquainted, and is one of four new species that Mr. Gunn has had the good fortune to discover in Van Dieman's Land.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Pod. *f.* 4. The same, one valve separating :—*magnified.*

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Tab. LIX.

Phebalium montanum.

Foliis teretibus obtusis punctato-glandulosis basi angustatis supra linea exarata, pedunculis brevissimis unifloris ex axillis foliorum superiorum.

Phebalium montanum. *Hook. Bot. Journ. p.* 255.

Hab. On the western mountains of Van Dieman's Land, at an elevation of 3000 feet above the level of the sea. *Mr. Lawrence* (*n.* 321). *Mr. Gunn* (*n.* 223).

The present plant has a very peculiar habit for a plant of this Genus, to which, however, I have no hesitation in referring it. It is quite destitute of the silvery scurf so frequent in many of the *Phebalia*. The back of the leaf is convex, the upper side furrowed. Calyx 5-cleft, with a bractea at its base. Petals obovato-lanceolate. Stamens 20, inserted at the base of a rather short fleshy torus: filaments slender, longer than the petals: anthers subglobose. Ovary of 5 oblong, obtuse lobes, glandular: style filiform: stigma obtuse.

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Pistil. *f.* 4. Back view of a leaf:—*magnified.*

Allan & Ferguson Lithog

Tab. LX.

Eriostemon obcordatum.

Foliis obcordato-cuneatis glabris carnosis grosse glanduloso-punctatis basi attenuatis, filamentis ciliatis, ramis glanduloso-tuberculatis.

Eriostemon obcordatum. *All. Cunningh. in Herb. nostr.—Hook. in Bot. Journ. p.* 254.

Hab. About Hobart-Town, Van Dieman's Land. *Mr. All. Cunningham. Mr. Lawrence* (*n.* 153). *Mr. Gunn* (*n.* 14).

Arbuscula, ramis insigniter tuberculatis. *Folia* copiosa, carnosa, glaucescentia, obcordato-cuneata, grosse glanduloso-punctata, subtus præcipue. *Pedunculi* longitudine foliorum, axillares, solitarii, uniflori. *Calyx* parvus, 5-lobus. *Petala* oblongo-obovata. *Stamina* alterna breviora: *Filamenta* pilosa; *antheris* cordatis, apiculatis. *Ovarium* 5-lobum, toro insertum. *Stylus* brevis: *stigma* obtusum.

Fig. 1. Flower. *f.* 2. The same, spread open. *f.* 3. Stamens. *f.* 4. Pistil. *f.* 5. Leaf:—*magnified.*

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Tab. LXI.

Gentiana Jamesoni.

Caule ascendente terete, foliis ovato-lanceolatis acuminatis trinerviis supremis verticillatis involucriformibus, floribus umbellatis, calycis 5-partiti segmentis lanceolatis tubo corollæ duplo brevioribus, corolla campanulata laciniis cordato-ovatis obtusis plica intermedia nulla, filamentis basi fimbriatis.

Hab. Western side of Pichincha, Colombia, at an elevation of 13,000 feet above the level of the sea. *Prof. W. Jameson* (*n.* 69), 1836.

Caulis spithamæus ad pedalem, erectus, teres, herbaceus, basi decumbens. *Folia* opposita, 2—3 uncias longa, ovato-lanceolata, acuminata, trinervia venisque inconspicuis reticulata; suprema subsex verticillata, circa umbellæ basin involucriformia. *Flores* 6—9, umbellati, nutantes, unciam longi. *Pedicelli* tripollicares, erecti. *Calyx* profunde 5-partitus, segmentis lanceolatis erectis tubo corollæ dimidio brevioribus. *Corolla* campanulata, limbo 5-lobo, laciniis cordato-ovatis obtusis. *Stamina* 5, valde inæqualia, subinclusa, filamentis latiusculis basi dilatatis utrinque fimbriatis. *Antheræ* oblongæ. *Germen* cylindricum, basi apiceque attenuatum. *Stigmata* obtusa brevia. *Capsula* matura corolla persistente fere duplo longior.

Among the last truly beautiful and interesting collection of plants I had the pleasure to receive from my valued friend Professor Jameson, is the present fine *Gentiana* from the alpine regions of Pichincha. Several other interesting species from the Colombian and Peruvian Andes will soon be described in the Monograph of this family by Dr. Griesbach.

Fig. 1. Flower. *f.* 2. Base of the corolla, bearing the stamens. *f.* 3. Single Stamen. *f.* 4. Pistil:—more or less *magnified.*

3
2
1

Tab. LXII.

Stelis lamellata. *Lindl.*

Foliis obovato-linearibus basi angustatis petiolatis mucronatis caulibus longioribus racemis multifloris duplo brevioribus, floribus secundis, sepalis ovatis æqualibus obtusiusculis, petalis minimis truncatis, labello subrotundato apiculato utrinque basi lamellato. *Lindl. MS.*

Hab. Ravines of Pichincha; *Prof. W. Jameson;* at the height of 12,000 feet, *Col. Hall.*

Descr. *Caules* vix digitales, aggregati, subramosi, articulati, vaginati, apice unifoliati. *Folium* lineari-spathulatum, acutissimum basi in *petiolum* attenuatum. *Racemi* terminales folio 3-plo longiores, graciles. *Flores* parvi, secundi. *Bractea* cucullata, ovarii longitudine. *Sepala* erecta, ovata, æqualia, basi juncta. *Petala* minuta, cuneata, truncata, parum concava, apice involuta, columnam æquantia. *Labellum* minutissimum, *petalis* minus, subrotundum, truncatum, apiculatum, basi bilamellatum.

Fig. 1. View of the upper side of a flower. *f.* 2. Under-side of do. *f.* 3. Petals, lip, and column (the anther having fallen away):—*magnified.*

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TAB. LXIII.

Conohoria castanæfolia.

Foliis præcipue in apice ramulorum alternis oblongo-lanceolatis argute serratis serraturis mucronatis, racemis simplicibus, pedunculis pedicellisque pubescentibus, "ovulis ex apice placentarum pendulis."

Conohoria castanæfolia. *Aug. de St. Hil. Plant. Us. des Brésil. n.* 10. *Pl. Remarq. Brés. et Parag. p.* 321. *Fl. Brazil, Mérid. v.* 2. *p.* 149.

Hab. Hedges about St. Christopher, Rio de Janeiro. *Aug. St. Hilaire.* Essequibo River. *Dr. Schomburgk* (*n.* 125).

Mr. Brown, in his Botany of the Congo, has shown that the *Alsodeia* and *Ceranthera* of P. de Beauvois, and the *Passoura* of Aublet, are the same Genus as *Conohoria* of the latter author, with which Kunth united *Rinorea* and *Riana*, also of Aublet; to which Martius has properly added the *Physiphora* of Solander. Thus this Genus is an inhabitant of Guiana and Brazil, western Africa and Madagascar. Our plant differs from the *Conohoria Rinorea*, St. Hil. (*Rinorea Guianensis*, Aubl. *t.* 95.) in the simple racemes and very different toothing of the leaves. These leaves are eaten by the Negroes of Rio de Janeiro, cooked, as a vegetable: and St. Hilaire strongly recommends its culture for that purpose.

No. 119 of Schomburgk's Essequibo collection seems to be the *Riana Guianensis* of Aublet (*t.* 96), with the leaves less serrated than in Aublet's figure. It appears that *Conohoria Rinorea*, above mentioned, varies in the same way.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Single stamen. *f.* 4. Pistil:—*magnified.*

Allan & Ferguson Lithog

TAB. LXIV.

Antonia pilosa.

Gen. Char. Antonia,* *Pohl. Cal.* pentaphyllus, squamis imbricatis tectus. *Corolla* infundibuliformis, laciniis 5, revolutis, fauce barbata. *Stamina* exserta, basi barbata. *Stigma* bifidum. *Ovarium* biloculare, placentis peltatis, ovulis numerosis tectum. *Fructus* capsularis, oblongus, bilocularis, bivalvis; dissepimento e valvarum marginibus introflexis. *Loculi* monospermi (ovulis numerosissimis abortientibus). *Semen* planocompressum, peltatum ad utramque extremitatem alatum. *Albumen* carnosum. *Embryo* longitudine fere albuminis, erectus, umbilico parallelus. *Cotyledones* rotundatæ, compressæ. *Radicula* teres.

Antonia *pilosa;* ramis foliisque obovatis subtus sericeo-pilosis.

Hab. Essequibo River. *Dr. Schomburgk* (*n.* 85, a.).

Antonia ovata, Pohl, the type of this Genus, has the leaves ovate, three or four times the size of those of the present plant, and the underside, as well as the branches, quite glabrous. In other respects the two plants almost entirely agree, and bear a striking resemblance at first sight to some genera of *Compositæ*, especially *Eupatorium*. The fruit was unknown to Pohl; but the superior ovary and the absence of stipules will separate the Genus from *Rubiaceæ*, to which that author referred it. Its symmetrical flowers will keep it, I think, distinct from *Loganiaceæ*, to which Mr. Bentham has suggested it might belong: and I am induced to refer it to *Apocyneæ*, notwithstanding that the embryo is transverse with the umbilicus.

Fig. 1. Flower. *f.* 2. Calyx and pistil. *f.* 3 Pistil. *f.* 4. Section of the ovary. *f.* 5. Under side of the peltate placenta. *f.* 6. Fruit. *f.* 7. Section of a valve, showing the position of the seed. *f.* 8. Under side of the seed with the placenta. *f.* 9. Placenta of the seed, the abortive ovules seen below. *f.* 10. Seed cut through to show the embryo;—more or less *magnified.*

* In denominatione hujus generis fulget gloria celsissimi Principis et Archiducis Austriæ, Antonii Victoris, Magni Magistri Ordinis Teutonici, summi Botanices cultoris et promotoris, &c., &c., &c.—*Pohl, Pl. Bras. Ic. et Descr. v.* 2. *p.* 14.

Allan & Ferguson Edinr.

TAB. LXV.

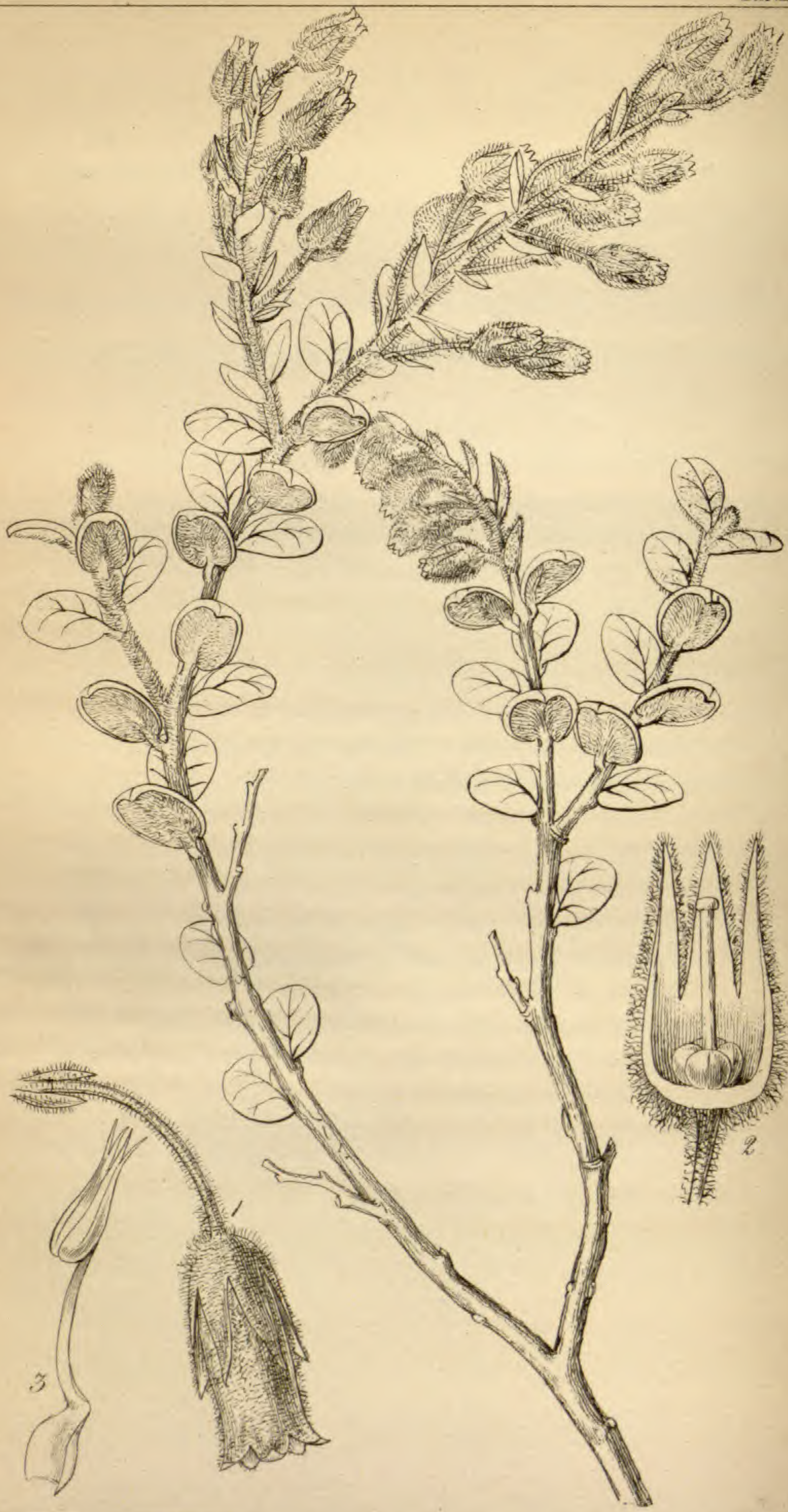
Fuchsia dependens.

Ramis elongatis scandentibus, foliis quaternim verticillatis ovatis acutis denticulatis subtus pallidis subincanis, racemis terminalibus foliosis foliis bracteiformibus, pedicellis flore brevioribus, calycis tubo longissimo inferne attenuato, lobis obtusiusculis petalorum oblongorum longitudine, stylo exserto, stigmate capitato.

Hab. Woods on the western side of Pichincha, where its long trailing branches are supported by the neighbouring trees. *Prof. W. Jameson* (*n.* 81).

Frutex, ramis elongatis subtetragonis, incano-pubescentibus. *Folia* verticillata, quaterna, breviuscule petiolata, 1—3 uncias longa, ovata, acuta, denticulata, supra tenuissime pubescentia, subtus pallida, subcanescentia. *Racemi* terminales, pendentes, elongati, foliosi; foliis quaternis ut in caulem, sed multoties minoribus. *Pedicelli* semipollicares, graciles: calycibus longissimis clavatis, tubo inferne attenuato, limbo 5-partito, laciniis oblongo-ovatis obtusiusculis petala oblongo obtusa æquantibus. *Stamina* inclusa, alternis brevioribus. *Stylus* exsertus. *Stigma* capitatum, obtusum, apice 4-dentatum.

Fig. 1. Flower, *nat. size.* *f.* 2. Upper part of the calyx laid open to show the petals and stamens. *f.* 3. Apex of the style, with the stigma:—*magnified.*



Allan & Ferguson Edin.

TAB. LXVI.

Gaultheria lanigera.

Racemis terminalibus axillaribusque, foliis orbiculatis rigidis convexis marginibus revolutis supra nudiusculis nitidis subtus racemisque lana densissima ferruginea vestitis.

Hab. Paramo, between Oña and Saraguru, at an elevation of 10,000 feet; very rare. *Prof. W. Jameson.*

A singular and well defined species, with crooked woody stems, and leaves which are nearly sessile, almost exactly orbicular, very convex above, the margins reflexed, the upper surface at length naked, shining; the young ones on both sides, the older ones beneath, and the whole racemes, including the calyx and corolla, clothed with a long, coarse, rusty-coloured wool. Corolla between urceolate and cylindrical. Stamens 10. Filaments much dilated at their base. Anthers: each cell terminated by a double tubular appendage.

Fig. 1. Flower. *f.* 2. Calyx laid open to show the pistil. *f.* 3. Stamen:—*magnified.*

Allan & Ferguson Lithog.

TAB. LXVII.

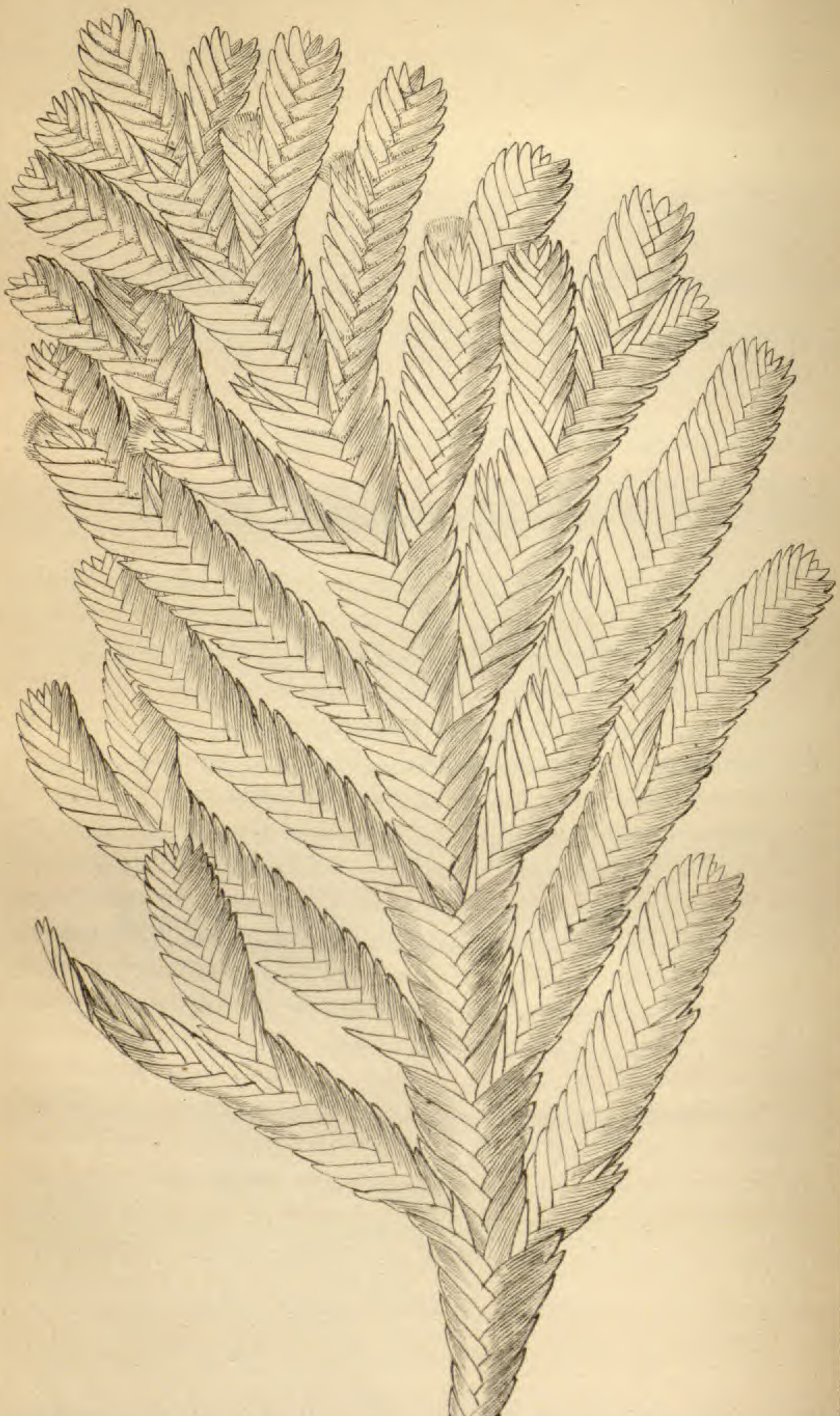
Viola glandulifera.

Caule brevi, foliis approximatis subcordato-ovatis obtusis crenato-sublobatis glabriusculis longe petiolatis, stipulis bracteisque longe glanduloso-ciliatis, petalis imberbibus (flavis), calcare subcylindraceo obtuso calycem acutum æquante.

Hab. Cordillera of Pillaro, Quitinian Andes, elevated 14,000 feet above the level of the sea. *Prof. W. Jameson.*

A small but very pretty species. The stems are filiform, and apparently subterraneous, the short leaf-bearing portion only rising above the ground. In the sinus of each notch on the leaf, and at the apex of each calycine leaf, there will be seen, under a microscope, a small sessile dark-coloured gland. The beautiful fringe of long hairs tipped with a gland on the stipules and the bracteas, together with the bluntly crenato-lobate leaves, are very characteristic of this species.

Fig. 1. Flower, front view. *f.* 2. Do. side view. *f.* 3. Leaf, with stipules:—*magnified.*



Allan & Ferguson Sculp.

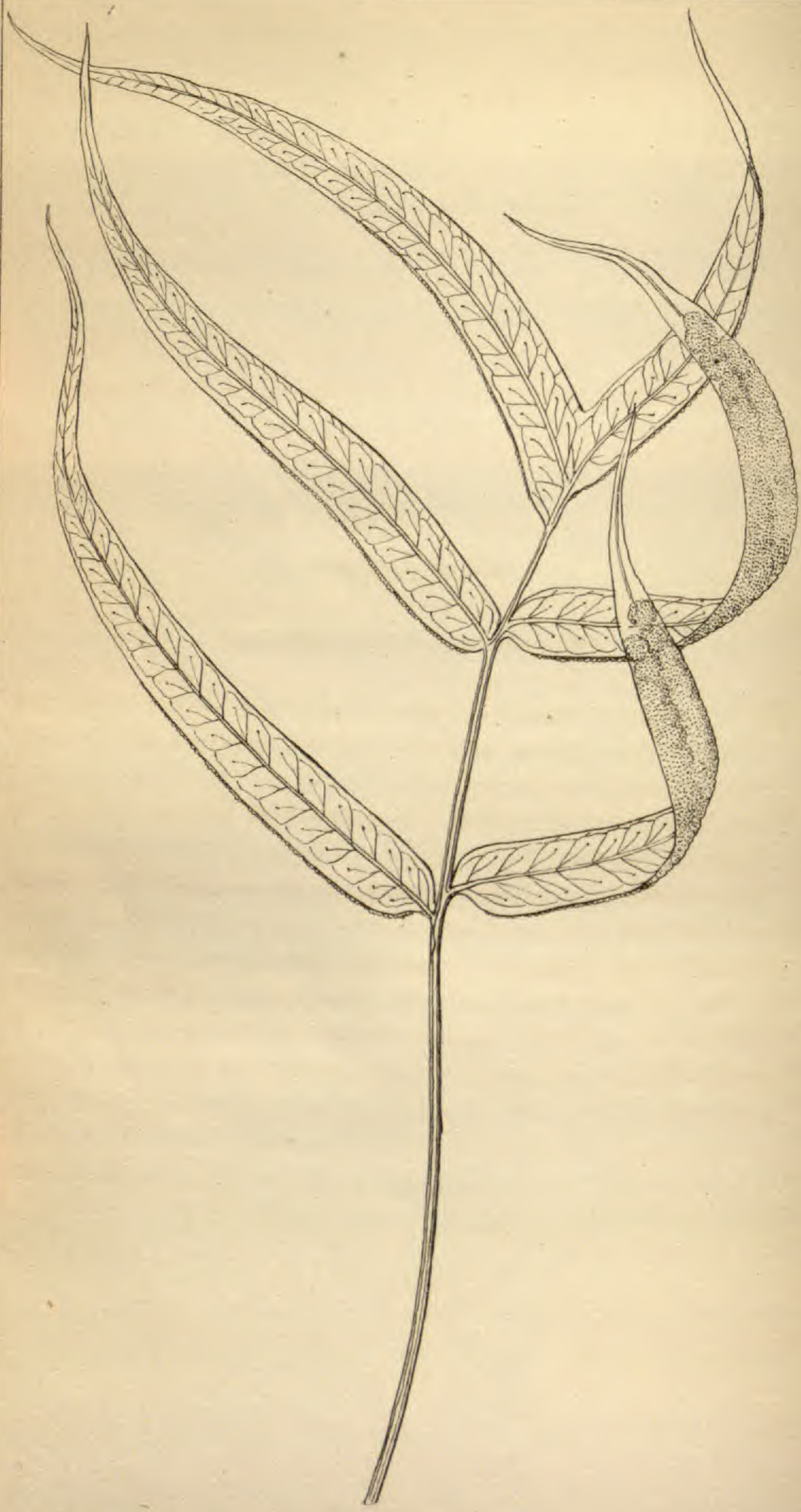
TAB. LXVIII.

BACCHARIS SCOLOPENDRA.

Ramis primariis ramulisque dense foliosis, foliis distiche arctissime imbricatis oblongo-cymbiformibus compressissimis carinatis intus lanatis siccitate lævibus, capitulis solitaris immersis terminalibus vel ob innovationibus quasi lateralibus.

HAB. Summit of the Cordillera of Pillaro, Quitinian Andes, elevated 14—15,000 feet above the level of the sea. *Prof. W. Jameson.*

This curious *Composita* is very different from the *Baccharis thyoides*, Pers., figured and described in the second volume of my *Botanical Miscellany, p.* 224. *t.* 94. The older branches are much more densely clothed with leaves than in that species, and exhibit none of the woolly covering: the leaves too are thrice as large, far more densely imbricated, more compressed and very acutely carinated: nor is the surface in the slightest degree wrinkled, nor does it appear viscid or glossy.



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TAB. LXIX.

Polypodium Surucuchensis.

Glabrum, fronde pinnata, pinnis lanceolatis sessilibus acuminatis nervosis basi superne rotundata inferne cuneata, soris uniserialibus demum confluentibus.

Hab. On trunks of trees at Surucucho, near Cuença, Columbia. *Prof. W. Jameson.*

Stipes brevis (?). *Frons* pinnata, pinnis suboppositis, remotis, 6—11, lanceolatis, sessilibus, submembranaceis, nervosis, apice attenuatis basi superne rotundatis inferne cuneatis, duabus superioribus basi confluentibus. *Sori* copiosi, uniseriales intra costam et marginem, majusculi, demum confluentes et totam fere superficiem inferiorem pinnæ tegentes, flavo-fusci.

Allan & Fergusson lithog.

TAB. LXX.

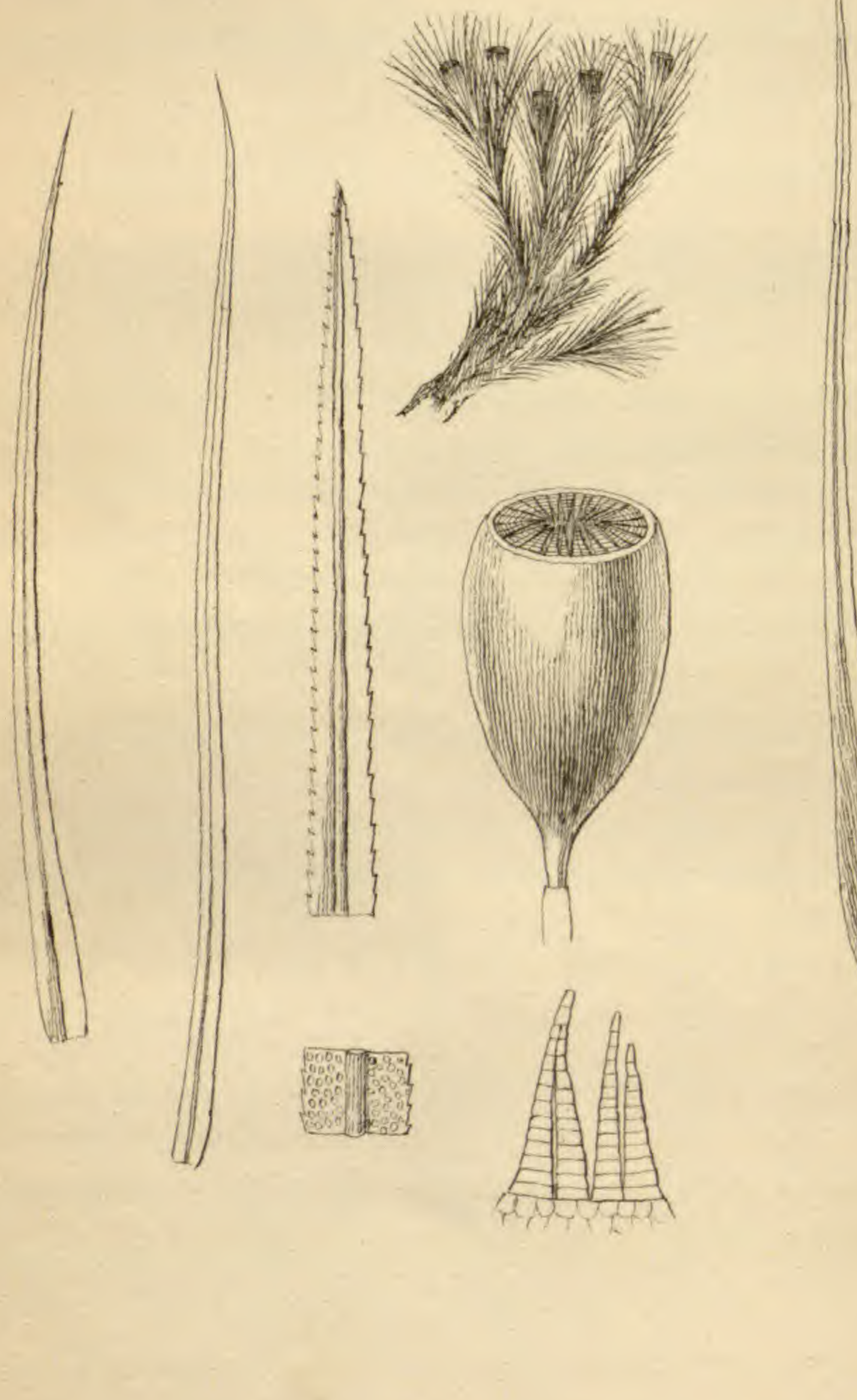
Polypodium murorum.

Frondibus ovato-oblongis pinnatis, pinnis lanceolatis rigidis mediis inferioribusque pinnatifidis integerrimis, rachi alata, stipite paleaceo, soris copiosis demum confluentibus.

Hab. Frequent on walls, also on trunks of trees in the environs of Quito. *Prof. W. Jameson* (*n.* 49).

Caudex repens, crassitie *pennæ anserinæ* vel major, squamosus, radiculosus. *Stipites* digitem longi, erecti, nitidi, hinc sulcati, paleacei, paleis fuscis sæpe deflexis. *Frons* stipitem æquans, circumscriptione ovato-oblonga, seu ovato-lanceolata, pinnata, pinnis subopppositis, mediis inferioribusque pinnatifidis, laciniis oblongis, obtusis, integerrimis; pinnis superioribus crenato-dentatis omnibus rigidis. *Rachis* alata. *Sori* uniseriales, copiosi, demum confluentes.

I am acquainted with this species only through the specimens I have received from Professor Jameson.



Allen & Ferguson Edin.

TAB. LXXI.

LEUCODON BARTRAMIOIDES.

Cæspitosa, ramosa, foliis erectiusculis subsecundis setaceis minute papillosis ad apicem uninerviis serrulatis, perichætialibus basi dilatatis, capsulis lato-ellipticis immersis sessilibus.

HAB. Surucucho, near Cuença. *Prof. W. Jameson.*

Caules 2—3 uncias longi, cæspitosi, inferne radiculis copiosis ferrugineo-tomentosis obsiti. *Folia* amæne viridia, undique inserta, subsecunda, setacea, sub lente papillosa, serrulata, a basi ad apicem uninervia, erecto-patentia: *perichætialia* basi insigniter dilatata. *Capsula* lato-elliptica, fere omnino sessilia, foliis perichætialibus immersa, rufo-fusca. *Peristomium* e dentibus 16, geminatis (vel, si mavis, 32 per paria approximatis), horizontalibus, lato-subulatis, transversim striatis. *Calyptram* et *operculum* non vidi.

Fig. 1. Tuft; *natural size.* *f.* 2. 3. Leaves. *f.* 4. Apex of do. *f.* 5. Portion of do. showing the papillæ. *f.* 6. Perichætial leaf. *f.* 7. Capsule. *f.* 8. Portion of the peristome:—*magnified.*

Allen & Ferguson Delin

TAB. LXXII.

LATHYRUS GLADIATUS.

Glaberrimus, siccitate nigricans, caule angulato, petiolo unijugato cirrhifero, foliolis anguste lanceolatis acuminatissimis nervosis, stipulis lato-lanceolatis basi semisagittatis petiolo duplo longioribus, pedunculis folio duplo longioribus plurifloris, calycis dentibus subulatis inæqualibus tubum subæquantibus.

HAB. Pichincha, in the region of Paramos, Columbia. *Prof. W. Jameson.*

Habit of *L. sessilifolius*, Hook. et Arn., and, like that, turning black in drying: but readily distinguished by the distinct petioles, $\frac{3}{4}$ of an inch long. From *L. macropus*, Gill., it is known by the solitary pair of very narrow leaflets, by the larger stipules, and by the total absence of pubescence.

Allan & Ferguson Edinb.

TAB. LXXIII.

Viscum incanum

Incano-sericeum, caule ramosissimo, ramis oppositis, foliis spathulatis subcarnosis, pedunculo brevi terminali bifloro, floribus fœmineis cylindraceis, perianthii limbo 4-lobo.

Hab. Brisbane River, N. Holland. Parasite on trees. *Mr. Fraser.*

The silky hoariness with which this plant is invested is a striking peculiarity in an extensive genus, where almost every species is glabrous. The leaves are small. In the axil of the extreme pair are the rudiments of 2 branches with 4 small stipules at the base, and, between these rudimentary branches, is a forked peduncle bearing two flowers, with a bractea at the base of the ovary. In our solitary specimen there are only female flowers, which are destitute of corollas. The style is conical: *stigma* obtuse. The fruit (scarcely mature) is subbaccate, subfusiform, crowned with the persistent teeth of the calyx.

Fig. 1. Apex of a flowering branch. *f.* 2. Female flower, one of the segments of the calycine limb being removed. *f.* 3. Fruit (scarcely mature). *f.* 4. Vertical section of do.:—*magnified.*

Allen & Ferguson lithog.

TAB. LXXIV.

Bassia microphylla.

Foliis obovatis utrinque glaberrimis, pedunculis glomeratis folio duplo brevioribus, sepalis 2 interioribus sericeis, corolla 5—6-partita inferne hirsutissima, staminibus 10—12 biserialibus.

Hab. Ceylon, *Col. Walker.*

Frutex seu *Arbor*, valde ramosa, ramis cortice cinereo rugoso tectis. *Folia* spansa, subunciam longa, obovata, brevi-petiolata, coriacea, venosa, glaberrima. *Pedunculi* uniflori, glabri, aggregati, rarius solitarii, folio duplo breviores. *Sepala* 4, ovata, obtusa, concava, imbricata, 2 exteriora glabra, 2 interiora extus sericea. *Corolla* 5—6-partita calyce brevior, inferne (intus extusque) valde pilosa, laciniis obovatis obtusis. *Stamina* prope faucem tubi biserialiter inserta: *Antheris* bilocularibus oblongo-sagittatis sessilibus. *Ovarium* subglobosum. *Stylus* exsertus, crassiusculus. *Stigma* acutum.

Fig. 1. Flower. *f.* 2. Corolla. *f.* 3. The same, laid open. *f.* 4. Stamens. *f.* 5. Pistil:—*magnified.*

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TAB. LXXV.

Argyroxiphium Sandwicense.

Argyroxiphium Sandwicense. *De Cand. Prodr. v.* 5. *p.* 668.
Argyrophyton Douglasii. *Hook. in Dougl. Ascent of Mowna Roa. Comp. to Bot. Mag. v.* 2.
Hab. Owhyhee, *Macrae.* Summit of Mowna Roa, *D. Douglas* (*n.* 15). Mowna Kaah, on the same island, *Rev. J. Diell. D. Douglas.*

This is doubtless one of the most remarkable plants among the *Compositæ*, and one with which the late unfortunate Mr. Douglas was much struck in his ascent of Mowna Roa and Mowna Kaah. I should have been happy if it could have borne his name, which I had given to it in the MS. for the present work, and in the *Companion to the Bot. Magazine*, before I received M. De Candolle's volume of the *Compositæ*, where I find it admirably characterized, and by a generic name, not very dissimilar to my own, and which could not fail to suggest itself, from the copious long, pure white and silvery hairs, which clothe the plant, but which are deciduous on the flowering portion of it.

Mr. Douglas describes it as 3—4 feet high, and almost the last plant seen on the ascent of the mountains above-mentioned: the dead stems were used for fuel by him and his party.

Fig. 1. Floret of the ray, enveloped below by an inner scale of the involucre. *f.* 2. Stigmas of do. *f.* 3. Fruit of do. with an imperfect pappus. *f.* 5. Floret of the disc. *f.* 6. Stamens of do. laid open. *f.* 7. Apex of the ovary of do. with the pappus partially removed to show the epigynous disc surrounding the base of the style. *f.* 8. Stigmas of do. *f.* 9. Fruit of do:— *magnified.* *f.* 10. Small leaf; *natural size.*

Allan & Ferguson Lithog

TAB. LXXVI.

Dalibarda lobata.

Repens, hirsuta, foliis simplicibus longe petiolatis cordatis lobatis grosse serratis, pedunculis longitudine foliorum bracteatis plurifloris.

Dalibarda lobata. *Baldw. in Ell. Carol. v.* 1. *p.* 571.

Hab. Hills on each side of Flint river, Georgia. *Dr. Baldwin.* Near Augusta, Georgia. *Dr. Wray.*

Caulis repens, filiformis, ramosus. *Folia* longe petiolata, simplicia, cordato-rotundata, subseptemlobata, appresso-pilosa: petiolis patenti-pilosis. *Pedunculus* gracilis, erectus, longitudine foliorum, hic illic bractea parvam oblongam gerens, apice 6—7-florus. *Calyx* petala superans. *Petala* obovata, flava.

This may well be reckoned among the rarest of the North American plants. The late Dr. Baldwin is the only published authority for its existence: but I am indebted to my friend Dr. Wray for the specimen here figured, gathered in the same State.

Allan & Ferguson Edinr

TAB. LXXVII.

Clematis pimpinellifolia.

Scandens? pubescenti-pilosa, foliis tri-quadripinnatisectis segmentis lineari-lanceolatis acutis, pedunculis terminalibus axillaribusque elongatis unifloris bibracteatis, bracteis oblongis integerrimis, fructus caudis sericeo-villosissimis.

Clematopsis pimpinellifolia. *Bojer's Mst.*

Hab. Madagascar. *Dr. Lyall.*

Of this singular and distinct species of *Clematis* I possess no flowering specimens. It belongs to the same groupe as our *C. Bojeri*, given at *t.* 10. of the present work, together with the 3 following species, all natives of Madagascar.

Allan & Ferguson lithog

TAB. LXXVIII.

Clematis anethifolia.

Scandens? glaberrima, foliis supra-decompositis segmentis linearisetaceis elongatis acutis, pedunculo terminali longissimo striato unifloro ebracteato, calyce campanulato, sepalis ovatis acuminatis intus marginibusque pubescentibus.

Clematopsis anethifolia. *Bojer, MSS.*

Hab. Madagascar. *Dr. Lyall.*

Of all the Madagascar species of *Clematis* the present is the most remarkable, whether we consider its supra-decompound fennel-shaped leaves, or the great length of the peduncle, which is little less than a foot and a half long.

Allan & Ferguson Edinr.

TAB. LXXIX.

Clematis trifida.

Scandens? pubescens, foliis ovato-cuneatis in petiolum attenuatis trifidis segmentis integris incisisve acutis, pedunculo elongato terminali infra florem sericeo-lanatis, calycis patentis sepalis lato-ovatis membranaceis venosis sericeis apice bidentatis.

Hab. Madagascar. *Dr. Lyall.*

This and the following species are remarkable for the small size of their leaves, and for the opposite pairs being very remote from each other. In these the flowers are very large and veiny.

Allen & Ferguson Lithog.

TAB. LXXX.

Clematis oligophylla.

Scandens? sericea, foliis bi-tripinnatisectis segmentis oblongis acutis, pedunculo terminali elongato ebracteato superne sepalisque ovatis acutis patentibus sericeo-lanatis.

Hab. Mountains in the province of Emirena, Madagascar. *M. Bojer.*

In this species the leaves, in structure, approach those of *C. pimpinellifolia;* but they are very much less divided, and in very remote pairs. The peduncle is destitute of bracteas, and its apex and the moderately-sized sepals are densely clothed with silky wool.

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TAB. LXXXI.

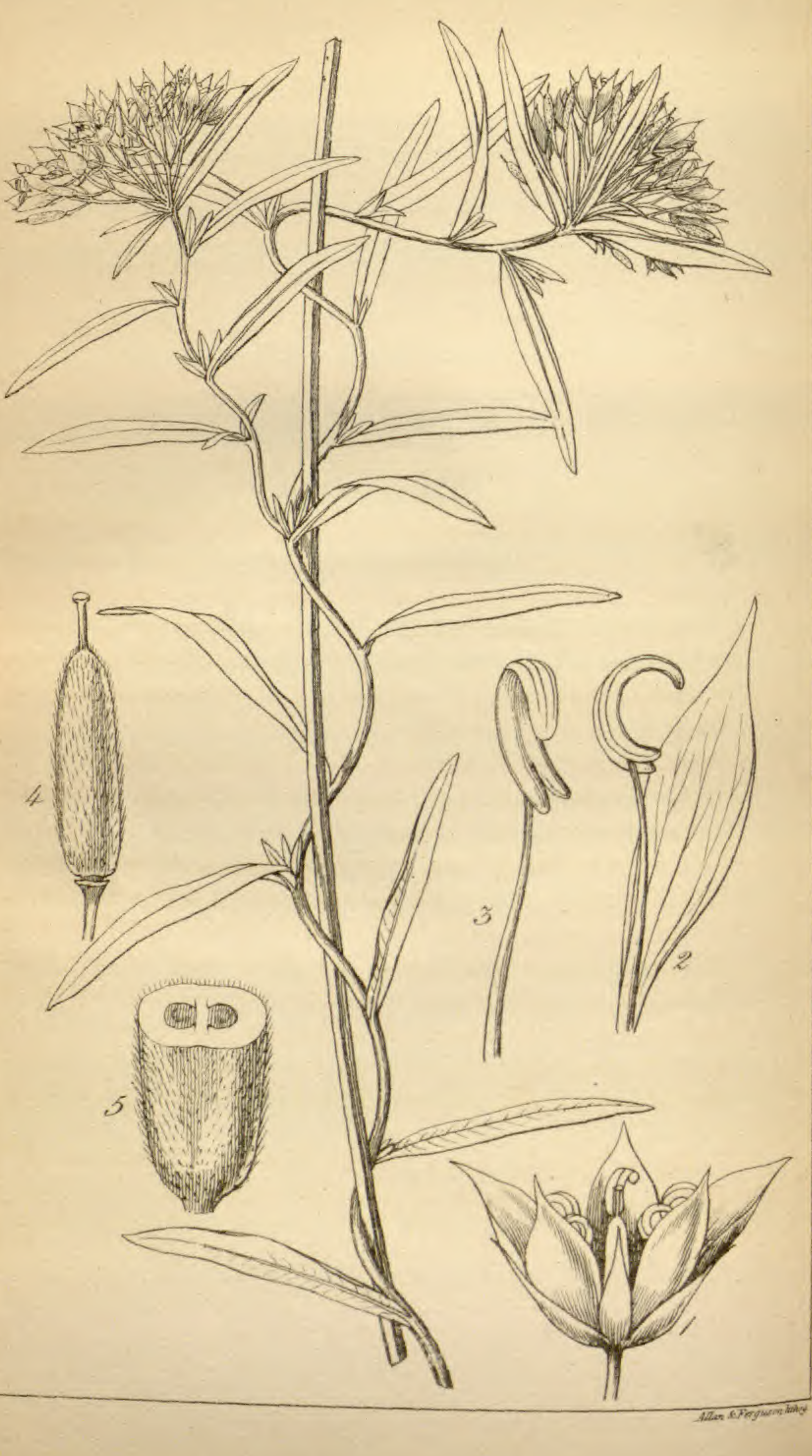
Cremolobus pubescens.

Suffruticosus, caule elongato foliisque ovatis brevi-petiolatis pubescentibus, racemis paniculatis foliosis flexuosis, floribus minutis, petalis subinclusis, siliculæ marginibus dentatis, stylo elongato.

Hab. Almirante, Cordillera of Peru. *Mathews* (*n.* 1606).

This has, at first sight, with its much divided and paniculated leafy racemes of minute flowers, very little the appearance of a Cruciferous plant: but it possesses all the characteristics of *Cremolobus*, and seems very different from any hitherto described.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. Pistil. *f.* 5. Silicula:—*magnified.*



Allan & Ferguson lithog.

TAB. LXXXII.

Campylanthera Fraseri.

Gen. Char. Campylanthera. (Spiranthera, *Hook. in Bot. Mag. sub. fol.* 2523, *non De Cand.*) *Sepala* 5, acuminata. *Petala* 5, acuminatissima, patentia, vix unguiculata. *Antheræ* liberæ, lineares, spiraliter contortæ. *Ovarium* oblongum, villosum, biloculare, intus pulposum. *Pericarpium?*—Frutices *scandentes;* foliis *oblongis*. Flores *terminales, corymbosi, cærulei.*

Campylanthera *Fraseri.*

Spiranthera Fraseri. *Hook. in Bot. Mag. sub fol.* 2523.

Hab. Common about the Swan River settlement, W. coast of New Holland. *Mr. Fraser.*

This is noticed by Mr. Fraser as a very beautiful creeper, as indeed it may well be, with its copious corymbs of azure flowers. It will be at once seen that it bears a close affinity with *Billardiera*, *Sollya* and *Cheiranthera* among the *Pittosporeæ:* differing from the first in its inflorescence, spreading petals, and spirally curved anthers; from the second, in its last mentioned character, and in having anthers not opening by pores; and from the third, in the different direction of the stamens and fleshy or pulpy fruit.

Fig. 1. Flower. *f.* 2. Petal and stamen. *f.* 3. Stamen. *f.* 4. Pistil. *f.* 5. Section of the germen:—*magnified.*

Allan & Ferguson lithog.

TAB. LXXXIII.

PHARNACEUM? SEMIQUINQUEFIDUM.

Annuum, caulibus erecto-patentibus superne paniculatis, foliis pseudo-verticillatis angusto-linearibus planis radicalibus subspathulatis, stipulis fimbriato-laceratis albidis, calyce turbinato quinquelobo, annulo hypogyno nullo.

HAB. Cape of Good Hope. *W. H. Harvey, Esq.* (*n.* 459).

Radix gracilis, parva, annua, longe descendens. *Caules* 4—5, vel plures, ex eadem radice, graciles, teretes, glabri, erecto-patentes, palmares, superne paniculati, ramis primariis oppositis, reliquis dichotomis. *Folia* pollicaria, glabra, pseudo-verticillata: *radicalia* anguste spathulata; *caulina* anguste linearia, plana, acuta. *Calyx* turbinatus, monophyllus, persistens, vix ad medium fissus in lobis 5 rotundatis, marginibus latis albis petaloideis. *Corolla* nulla. *Stamina* 5, inclusa, prope basin calycis inserta, lobis alternantia, inclusa. *Germen* ovale, glandula hypogyna nulla: *Stigmata* 3, erecta, sessilia, brevissima. *Capsula* ovalis, 3-locularis, 3-valvis, valvis medio septiferis. *Semina* numerosa, in placentam columnarem centralem demum liberam affixa.

I do not find this plant any where noticed, not even in the copious list of Cape plants lately published by Eklon and Zeyher. I presume it should be referred to *Pharnaceum*, L. and Eklon, *Ginginsia*, DC. But our plant differs from *Ginginsia*, DC. in having a 5-cleft (not 5-partite) calyx, no annular disc to the germen, and a decidedly 3-valved capsule.

Fig. 1. Flower. *f.* 2. The same laid open. *f.* 3. Stamen. *f.* 4. Capsule, with the valves burst and many of the seeds fallen away from the placenta:—*magnified.*

Allem. & Ferguson Sculp.

TAB. LXXXIV.

Polypodium myriocarpum.

Fronde glabra lanceolata pinnata, pinnis lineari-lanceolatis subcoriaceis obtusis grosse crenatis basi decurrentibus medio pinnatifidis, laciniis lineari-oblongis crenatis, soris copiosissimis singula serie inter costam et marginem sitis, stipite nudo subtetragono, caudice repente dense squamoso.

Hab. Sandwich Islands. *Mr. Douglas* (*n.* 75).

Caudex repens, crassitie pennæ anserinæ, squamis membranaceis acutis nitidis fuscis dense obsitus. *Stipes* erectus, spithamæus, subtetragonus, nudus. *Frons* pedalis ad sesquipedalem, circumscriptione lanceolata, subcoriacea, pinnata, pinnis digitalibus et ultra, lineari-lanceolatis, obtusis, basi decurrentibus marginibus grosse crenatis, medio pinnatifidis, laciniis lineari-oblongis crenatis. *Rachis* compressa, nuda, superne ob pinnas decurrentes alata. *Sori* rotundati, prominentes, copiosissimi, in omnibus fere pinnas et per omnem partem pinnarum, inter costam et marginem dispositi.

A very distinct species of *Polypodium*, which I have only seen in the small collection that has reached us of poor Douglas' Sandwich Island plants. It is remarkable for the very copious sori, occupying, as they do, almost the whole back of the frond, from the base to the apex.

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TAB. LXXXV.

Lycopodium Pichinchense.

Caule repente flexuoso, ramis fastigiatis, foliis undique insertis lineari-subulatis compressis patenti-curvatis acutis integerrimis, spicis sessilibus elongatis cylindraceis subpaniculatis, squamis cordato-ovatis acuminatis subsquarrosis erosis.

Hab. Pichincha, at an elevation of 10,000 feet above the level of the sea. *Col. Hall.* On the ground at Surucucho. *Prof. W. Jameson.*

This may be placed near the *Lycopodium subinæfolium* of Willd. (*L. alpinum*, Mich. not Linn.) a native of North America; but it is abundantly distinct from it and every other species with which I am acquainted.

Fig. 1. Front view, and *f.* 2. back view of a leaf. *f.* 3. Exterior view of a scale with its capsule. *f.* 4. Interior view of do.:—*magnified.*

Allen & Ferguson lithy.

TAB. LXXXVI.

Polypodium Tweedianum.

Fronde ovato-lanceolata profunde pinnatifida submembranacea, laciniis remotiusculis alternis erecto-patentibus linearibus acutiusculis crenatis, supra nudis subtus sparse lepidotis, squamis ovato-acuminatis peltatis angulato-dentatis, soris uniserialibus, stipite paleaceo.

Hab. Woods of St. Xavier, Tucuman, S. America. *Mr. Tweedie.*

This is clearly a distinct species of *Polypodium* from any hitherto described. Its nearest affinity is with *P. incanum*, Sw., but that has a much thicker, nearly coriaceous frond, turning almost black in drying (in ours a bright green); the laciniæ are more patent, obtuse, entire, the scales are more ciliated, infinitely more numerous, so as to cover the whole underside, and to fringe the margin, of the frond. In one of our specimens of *P. Tweedianum* the two lower laciniæ are forked.

Fig. 1. 1. Scales of the underside of the frond:—*magnified.*

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TAB. LXXXVII.

VACCINIUM CEREUM.

Follis persistentibus obovatis lato-ellipticis oblongisve apiculatis acutissime glanduloso-serratis utrinque reticulatis subsessilibus, pedunculis axillaribus unifloris cernuis, calycis segmentis oblongis longitudine germinis, corolla urceolato-cylindracea 5-dentata, antheræ tubis elongatis basi dorso aristatis.

α. foliis lato-ellipticis glabris. *V. cereum, Forst. Florul. Ins. Austr. Prodr. p.* 28. *Cham. in Linnæa, v.* 1. *p.* 527. *Sm. in Rees, Cycl.*—(TAB. NOSTR. LXXXVII.)

β. Foliis lato-ellipticis pubescentibus. *Dougl. Pl. of Sandw. Isl.* (*n.* 17).

γ. Foliis obovatis. *V. reticulatum. Sm. in Rees, Cycl.*

δ. Foliis oblongo-ovatis remotioribus, ramis strictioribus. *V. dentatum. Sm. in Rees, Cycl.*

HAB. Society Islands. Tahiti. *Forster. M. Morenhout* (*ex Herb. Webb*). Toobouia. *Cuming* (*n.* 1429). Sandwich Islands. Owhyhee. *Menzies,* (at the Volcano). *Chamisso. Douglas* (*n.* 16. and *n.* 17). Wooahoo. *Macrae.* Mowee. *Menzies.*

This is certainly a very variable plant; but admirably described by Chamisso in the place above quoted. Specimens from the venerable Menzies enable me to unite, without hesitation, the *V. dentatum* and *reticulatum* of Sm. with the *V. cereum* of Forster. The plant is called "Obu Obu" by the natives of Tahiti, according to M. Morenhout, and appears to be common to the Pacific Islands both north and south of the line.

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Pistil and calyx:—*magnified.*

Allan & Ferguson lithog.

TAB. LXXXVIII.

Asplenium fragrans.

Erectum, fronde lanceolata pinnata, foliolis lanceolatis crenato-serratis acuminatis basi superne truncatis subauriculatis inferne cuneatis, superioribus sensim minoribus, rachi alata, stipite compresso.

α. Foliolis longe acuminatis.

β. Foliolis brevi-acuminatis.

Hab. Columbia. On the trunks of trees in the forest of "el Pau," near Guachapala.—β. On the descent from Molleturo to Narausal, elevated 6000 feet. *Prof. W. Jameson.*

Filix erecta, spithamæa, fere ad pedalem. *Radix* fibrosa. *Stipes* 2—4 pollicaris, nudus, superne præcipue compressus et subalatus. *Frons* circumscriptione lanceolata, seu ovato-lanceolata, pinnata, pinnis (20—30) versus apicem sensim minoribus, lanceolatis seu ovato-lanceolatis brevissime petiolatis, submembranaceis, alternis crenato-serratis, magis minusve attenuatis, basi superne truncatis et subauriculatis, inferne cuneatis. *Sori* copiosi, in singulo nervo solitarii. *Involucrum* lineare. *Capsulæ* fuscæ. *Rachis* late alato-marginata.

I have derived the specific name of this Fern from the circumstance mentioned by Professor Jameson, that when drying it smells like *Anthoxanthum odoratum*. As a species, its nearest affinity is perhaps with *Asplenium virens*, Presl; but that plant has only seven or eight pinnules, all nearly equal in size, twice as large as those of our plant, cuneate on both sides at the base, sharply and doubly serrated, and the rachis is only winged above.

Allan & Ferguson lithog.

TAB. LXXXIX.

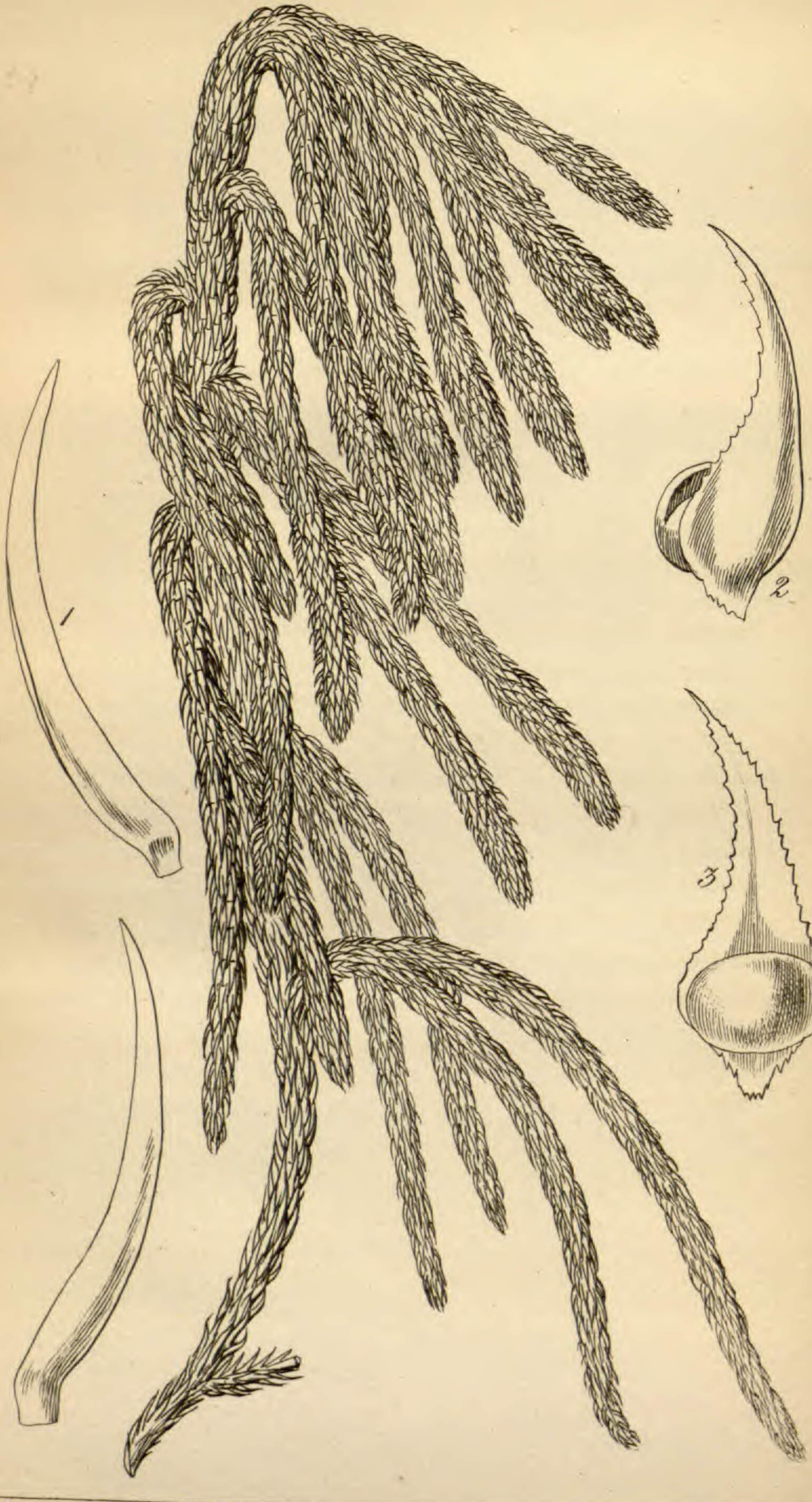
Lycopodium scariosum.

Repens vel scandens, ramis elongatis erectis dichotomis, foliis undique imbricatis erectis appressis lineari-subulatis dentatim laciniatis membranaceo-scariosis albidis basi solummodo herbaceis, spicis cylindraceis sessilibus, squamis scariosis cordato-ovatis longissime acuminatis ciliato-denticulatis.

Hab. Casapi, Peru. *Mathews* (*n.* 1765.)

Judging from our specimens of this very distinct *Lycopodium*, it would appear to be a plant hanging down from rocks or trees, and from which the branches all rise erect. The leaves are remarkable, in being almost destitute of parenchyme; both they and the scales, or bracteas of the spikes, are singularly thin, white, and membranaceous, the parenchymatous or herbaceous substance being wholly confined to their base.

Fig. 1. Leaf. *f.* 2. Scale with its capsule:—*magnified.*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TAB. XC.

Lycopodium pendulinum.

Repens vel scandens, ramis fastigiatis subelongatis acutiusculis pendulis, foliis undique laxe imbricatis erectis curvatis linearisubulatis integerrimis, spicis sessilibus solitariis terminalibus cylindraceis, squamis cordato-acuminatis eroso-denticulatis.

Hab. Casapi, Peru. *Mathews* (*n.* 1776).

This species may be considered to rank in the same group with *Lycopodium cernuum*, and very near to the *L. tortum*, Sieb. *Fl. Martinic. n.* 328 :—but the ramification and habit are considerably different, and especially the apices of the branches; —almost acute in the present ;—blunt and even enlarged at the extremity, in *L. tortum*.

Fig. 1. Upper, and *f.* 2. under side of a leaf. *f.* 2. 2. Back, and *f.* 3. front view of a scale with its capsule :—*magnified.*

Allan & Ferguson lithog.

TAB. XCI.

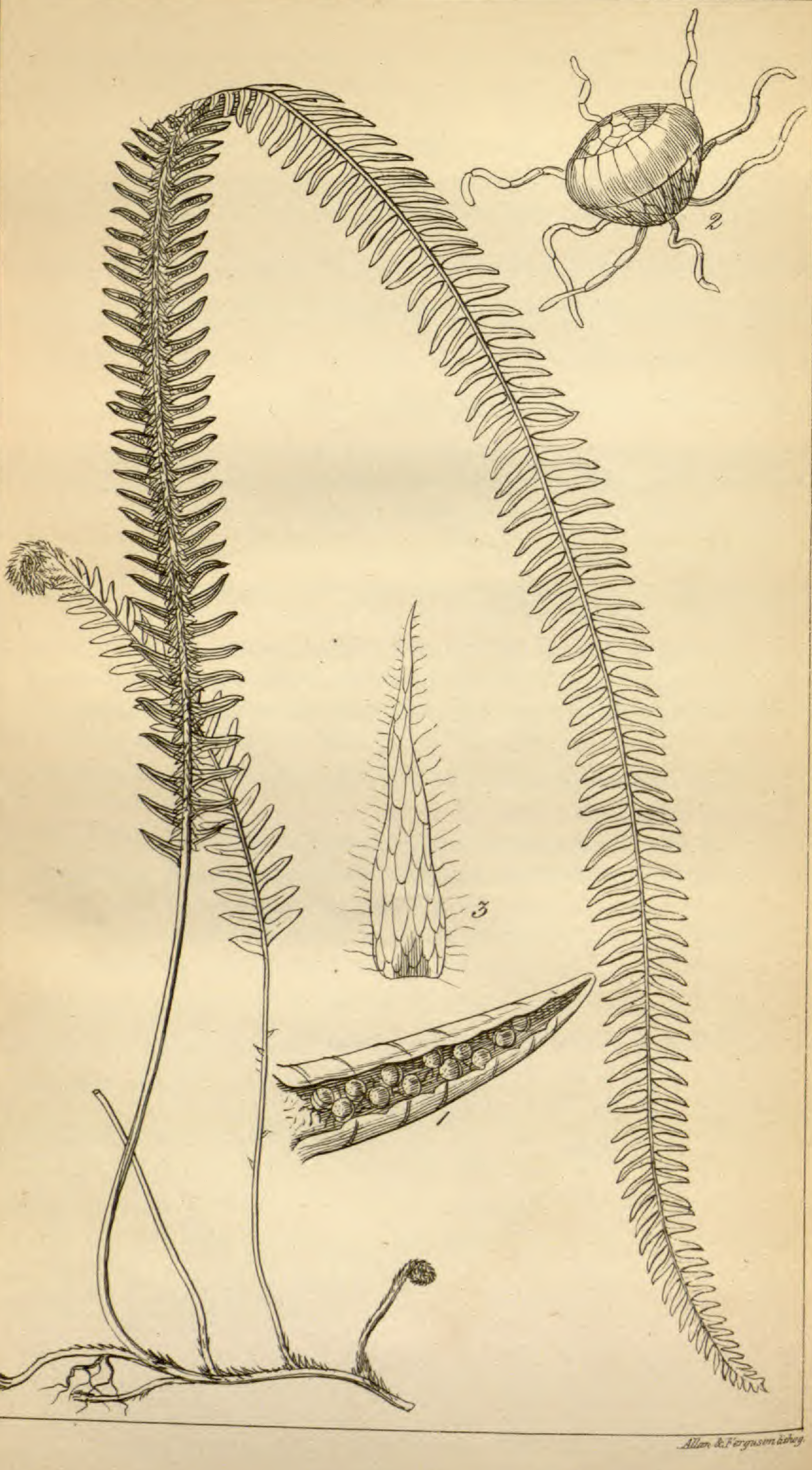
Peperomia margaritifera.

Simplex erecta, caule incrassato, foliis obovato-lanceolatis petiolatis venosis subtus præcipue pubescentibus, spicis axillaribus fasciculatis pedunculatis bracteatis folio 3-plo brevioribus.

Peperomia margaritifera. *Bert. MSS. in Herb. Hook.*

Hab. In rocky shady places on the more elevated mountains of Juan Fernandez. *Bertero.*

A most distinct and entirely new species of *Peperomia;* for which I have thought it my duty to preserve the name given by the excellent discoverer; although it may be difficult, in the dried state of the plant, to guess at the meaning of the specific appellation. Perhaps the curious little clusters of spikes, supported on their delicate and slender stalks, may, in the living state, resemble small bunches of pearls.



Allan & Ferguson sculp.

TAB. XCII.

Gleichenia simplex.

Fronde simplici lineari-elongata profunde pinnatifida, laciniis lanceolatis subtus glaucis costa nervisque ferrugineo-lanatis marginibus revolutis, rachide squamosa squamis pulcherrime ciliatis, capsulis subsolitariis turbinato-rotundatis.

Hab. Mountains of Andimarca, Cordillera of Peru. *Mathews* (*n.* 1093.) Abundant at Surucucho, Columbia, on the ground. *Prof. W. Jameson.*

Caudex repens, ramosus, squamosus, crassitie *pennæ corvinæ.* Stipes erectus, gracilis, squamis deciduis hic illic tectus. *Frons* omnino simplex, spithamæa ad pedalem et ultra, circumscriptione lineari-lanceolata, profunde pinnatifida, laciniis patentibus, lineari-lanceolatis, acutis, marginibus revolutis, supra glabris viridibus, subtus glaucis costa nervisque ferrugineo-lanatis. *Rachis* dense squamosa, squamis ferrugineis lanceolatis pulcherrime ciliatis. *Capsulæ* turbinatæ, annulo completo crasso cinctæ, lana semi-immersæ, pallide fuscæ.

Fig. 1. Underside of a segment of the frond. *f.* 2. Capsule with woolly hairs at the base. *f.* 3. Scale from the rachis:—*magnified.*

Allan & Ferguson lithog.

TAB. XCIII.

Davallia serræformis.

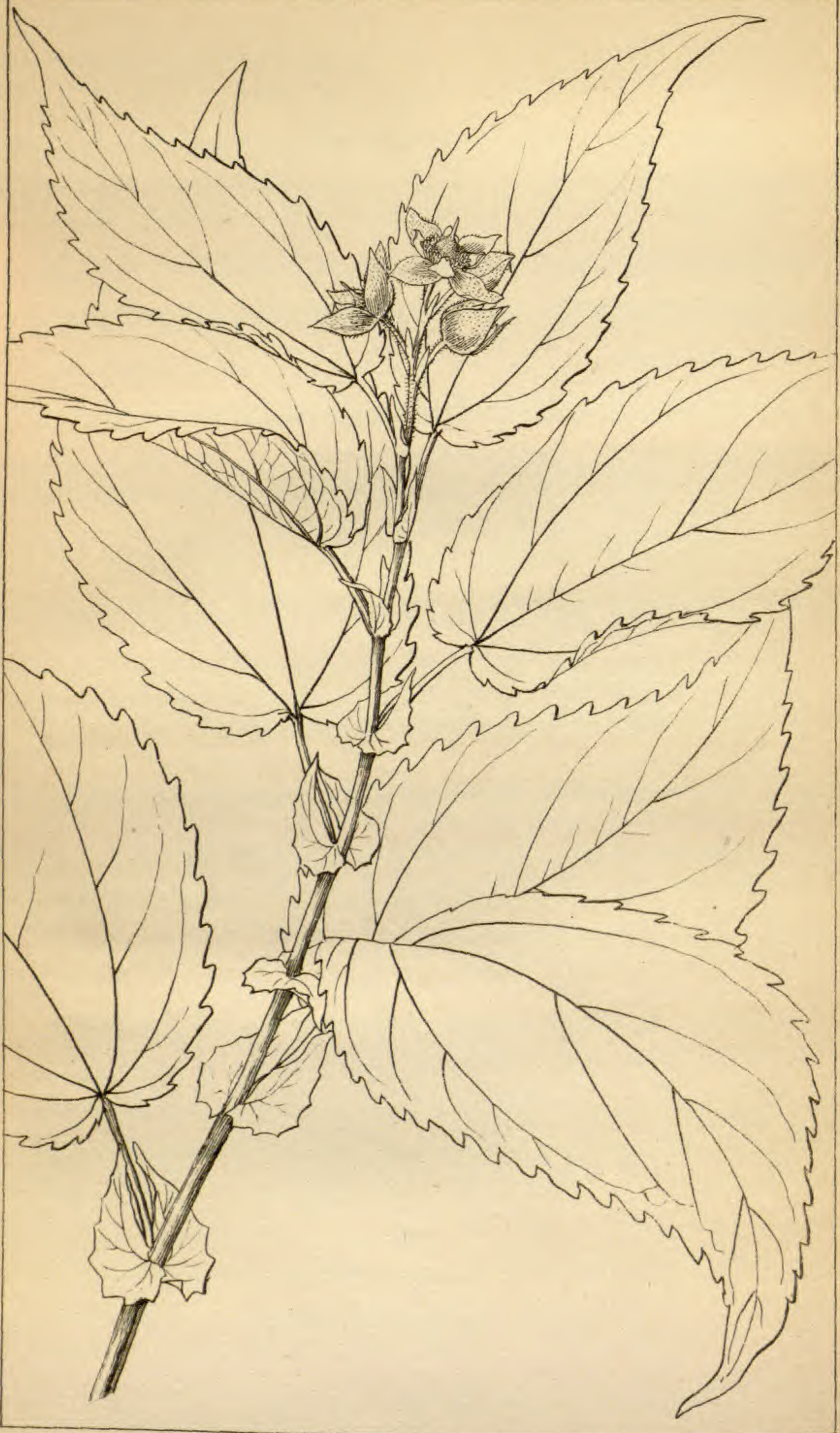
Frondibus sessilibus cæspitosis lanceolatis pinnatifidis leviter pubescentibus basi apiceque attenuatis integris laciniis oblongis obtusis integerrimis, soris solitariis vel binis ad apicem laciniarum.

Davallia serræformis. *Wall. in Cat. of E. Ind. Comp. Mus. n.* 249.

Hab. Penang, *G. Porter.* 1823. (*Wallich.*)

A well-marked and very distinct species. The fronds grow in tufts, and are so decurrent upon the stipes that they may be considered sessile. When seen under a microscope, the fronds are observed to be downy.

Fig. 1. Portion of a frond. *f.* 2. Apex of a fertile segment: —*magnified.*



Allan & Ferguson lithog.

Mathewsianæ. N. O. Bixineæ.

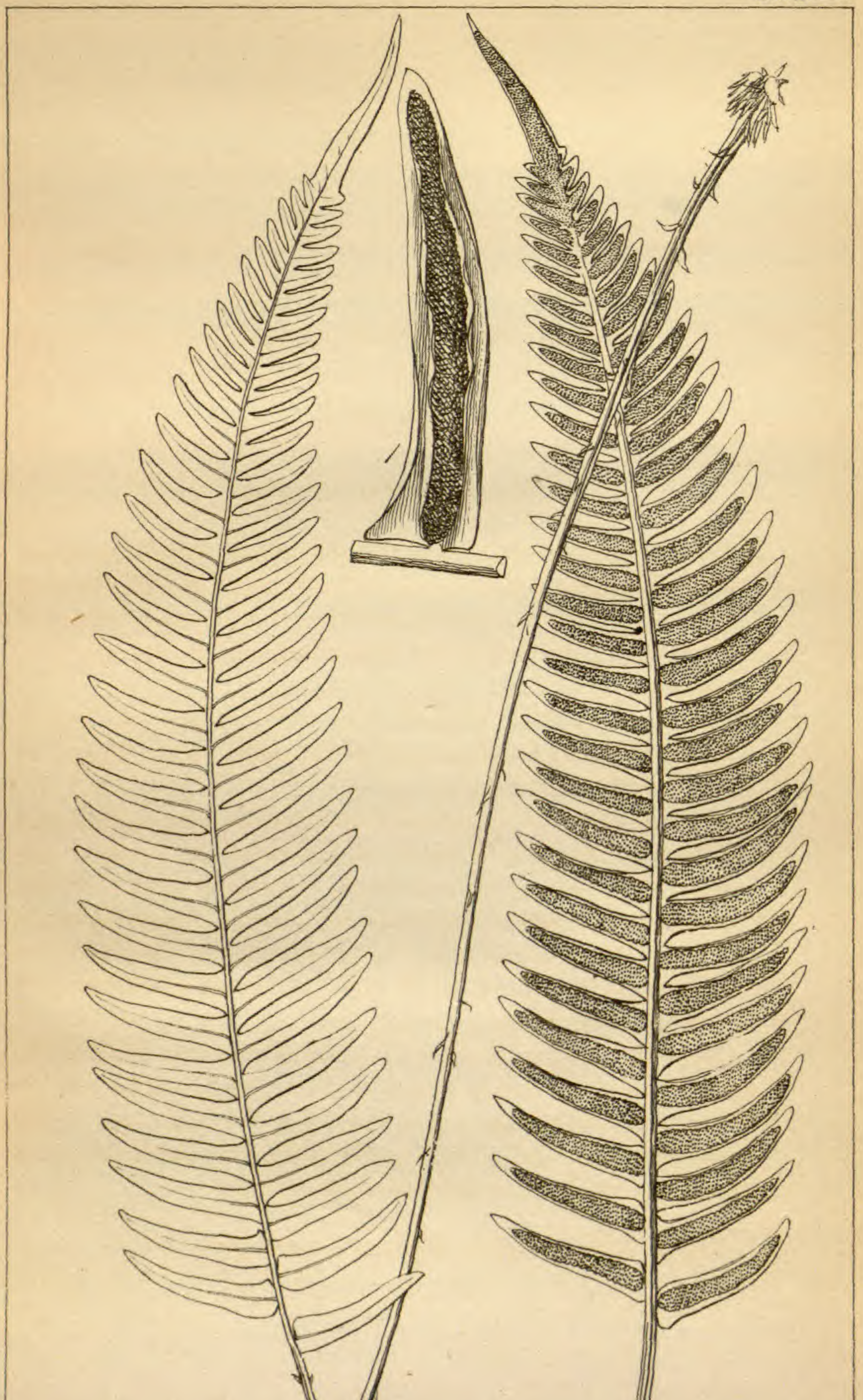
TAB. XCIV.

Prockia completa.

Foliis cordato-ovatis grosse serratis longe acuminatis acumine integerrimo, stipulis magnis semicordatis dentatis, floribus pentapetalis.

Hab. Casapi, Peru. *Mathews* (*n.* 400).

Nearly allied to *Prockia Crucis*, Linn., and of Vahl's *Symb. Bot.* 3. *t.* 64: but the present species differs in having the leaves much larger, more acuminated, with the point entire, the rest of the leaf more coarsely serrated, the petioles longer, the stipules much longer and semicordate, and above all, in the presence of petals.



Allom & Ferguson lithog.

TAB. XCV.

Blechnum pectinatum.

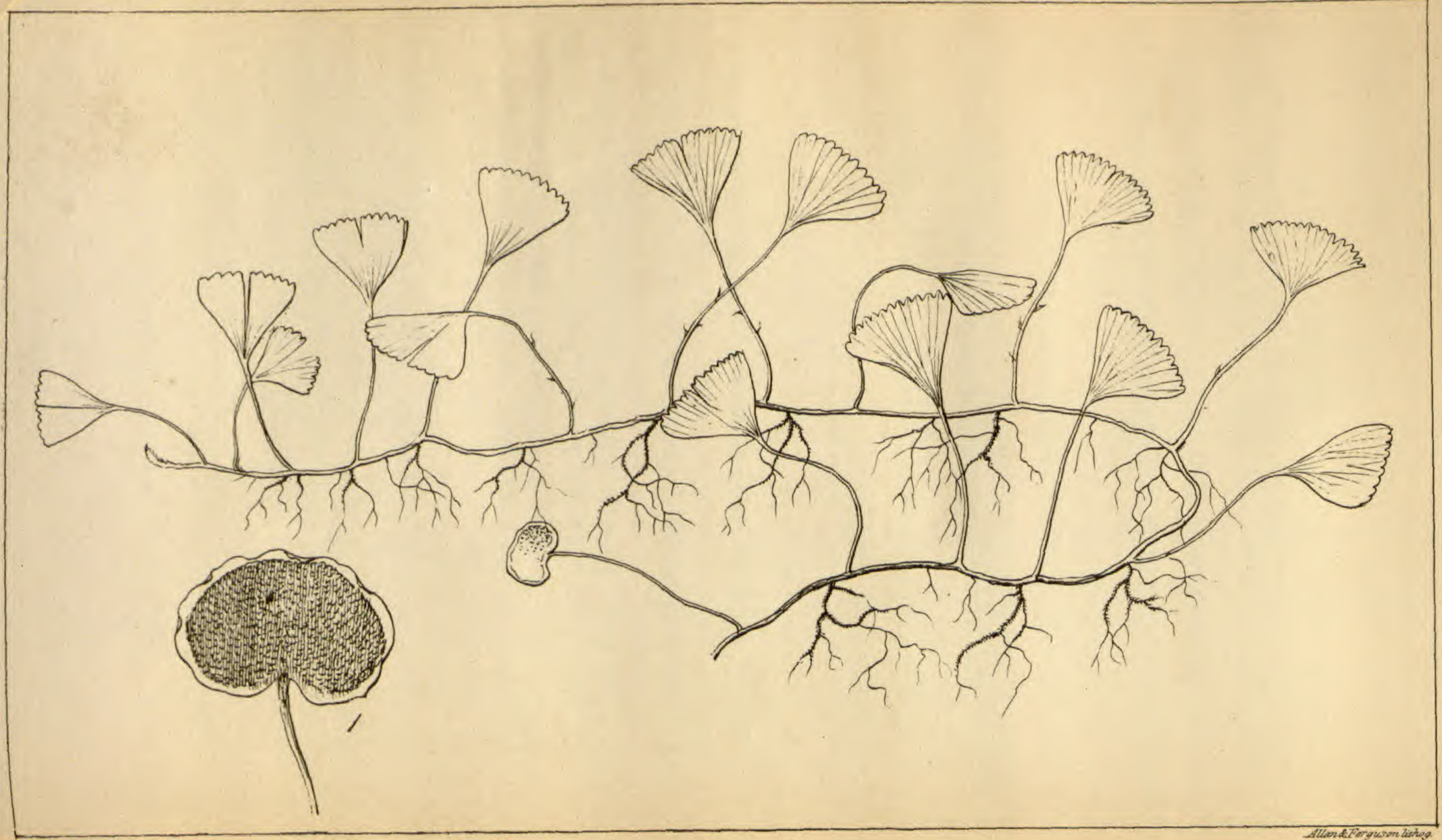
Fronde ovato-lanceolata profunde pinnatifida, laciniis approximatis lineari-lanceolatis acutis, infimis (seu pinnis) liberis, soris utrinque ad costam, capsulis numerosissimis demum fere totam fere superficiem inferiorem tegentibus, stipite elongato subpaleaceo.

Hab. Sent by *Mr. Mathews* with "*Polypodium, n.* 1805;" hence probably an inhabitant of the same place, Casapi, in the Cordillera of Peru.

Cæspitosa. *Stipites* spithamæi erecti, teretes, hinc sulcati, subpaleacei. *Frondes* palmares, circumscriptione ovato-lanceolatæ, apice solummodo attenuatæ, acumine integro, profunde pinnatifidæ, laciniis approximatis, falcatis, lineari-oblongis, acutis, infimis solummodo, seu pinnis, liberis. *Sori* utrinque ad costam inserti. *Capsulæ* copiosæ, demum totam fere partem inferiorem laciniæ occupantes.

From the *B. polypodioides* of Raddi this is at once distinguishable by its more closely placed and narrower laciniæ, not becoming gradually smaller and deltoid at the base: and by the innumerable capsules which force back the involucres, and cover almost the whole under surface of the laciniæ.

Fig. 1. Inferior lacinia or pinna:—*magnified.*



Allen & Ferguson lithog.

TAB. XCVI.

ACROSTICHUM FLABELLATUM.

Caudice filiformi repente, frondibus sterilibus bipartitis laciniis cuneiformibus bi- aut trifidis apice inciso-crenatis, fertilibus reniformibus crenatis.

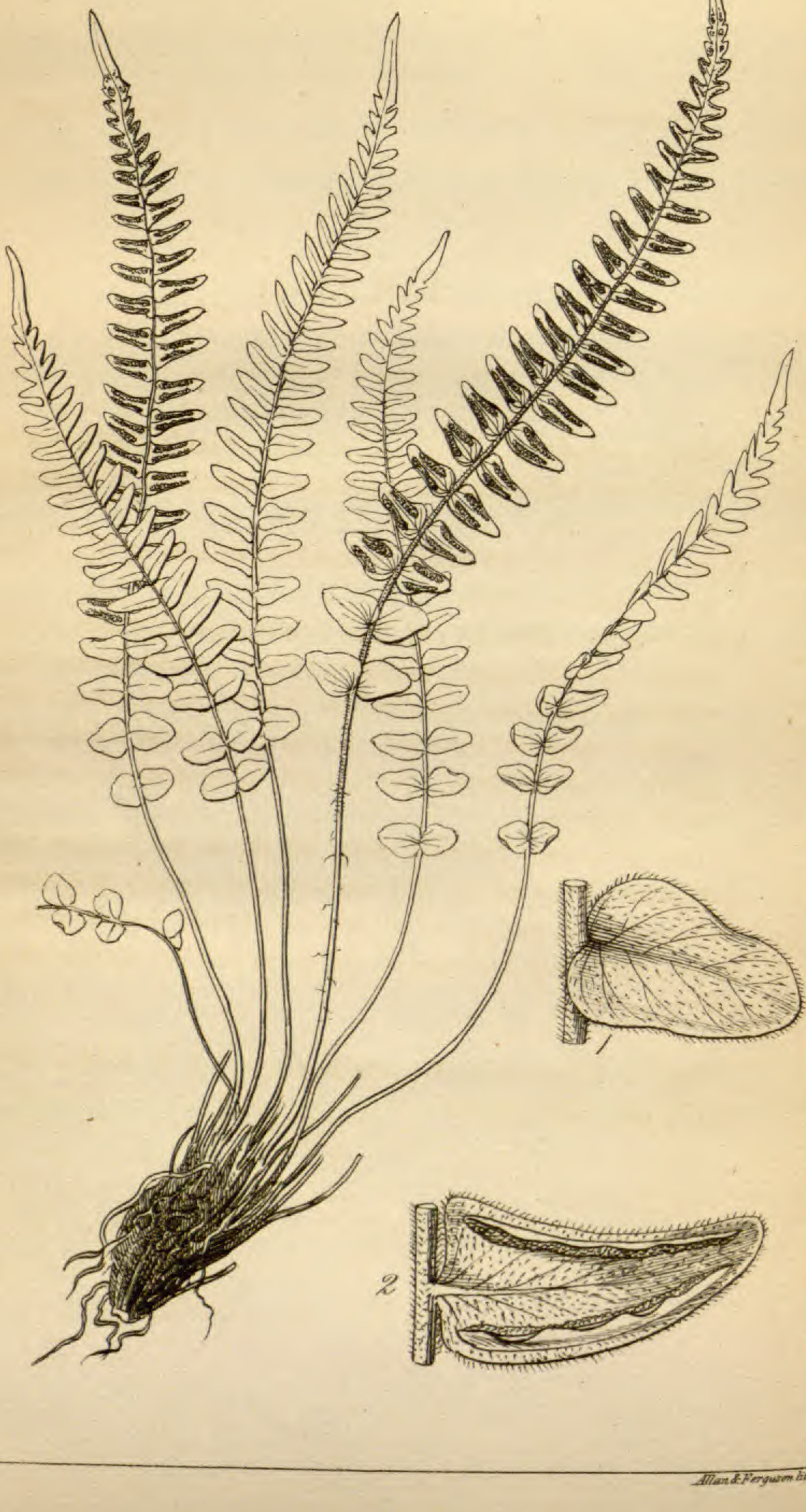
Acrostichum flabellatum. *Willd. Sp. Pl. v.* 5. *p.* 110. *Humb. et Kunth. Nov. Gen. v.* 1. *p.* 2. *et v.* 7. *t.* 162.

β; frondibus sterilibus plerumque integris.—(TAB. NOSTR. XCVI).

HAB. α. Rocky places, Venezuela. β. Casapi, Cordillera of Peru, *Mathews* (*n.* 1801).

I was at first disposed to look upon this as a distinct species from the *Acrostichum flabellatum* : but a more careful comparison with the figure and description above quoted, has satisfied me that it can only be considered a variety, with the sterile fronds, in most instances, undivided, and with no disposition to have the segments bi- or trifid.

Fig. 1. Underside of a fertile frond:—*magnified.*



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TAB. XCVII.

BLECHNUM PUBESCENS.

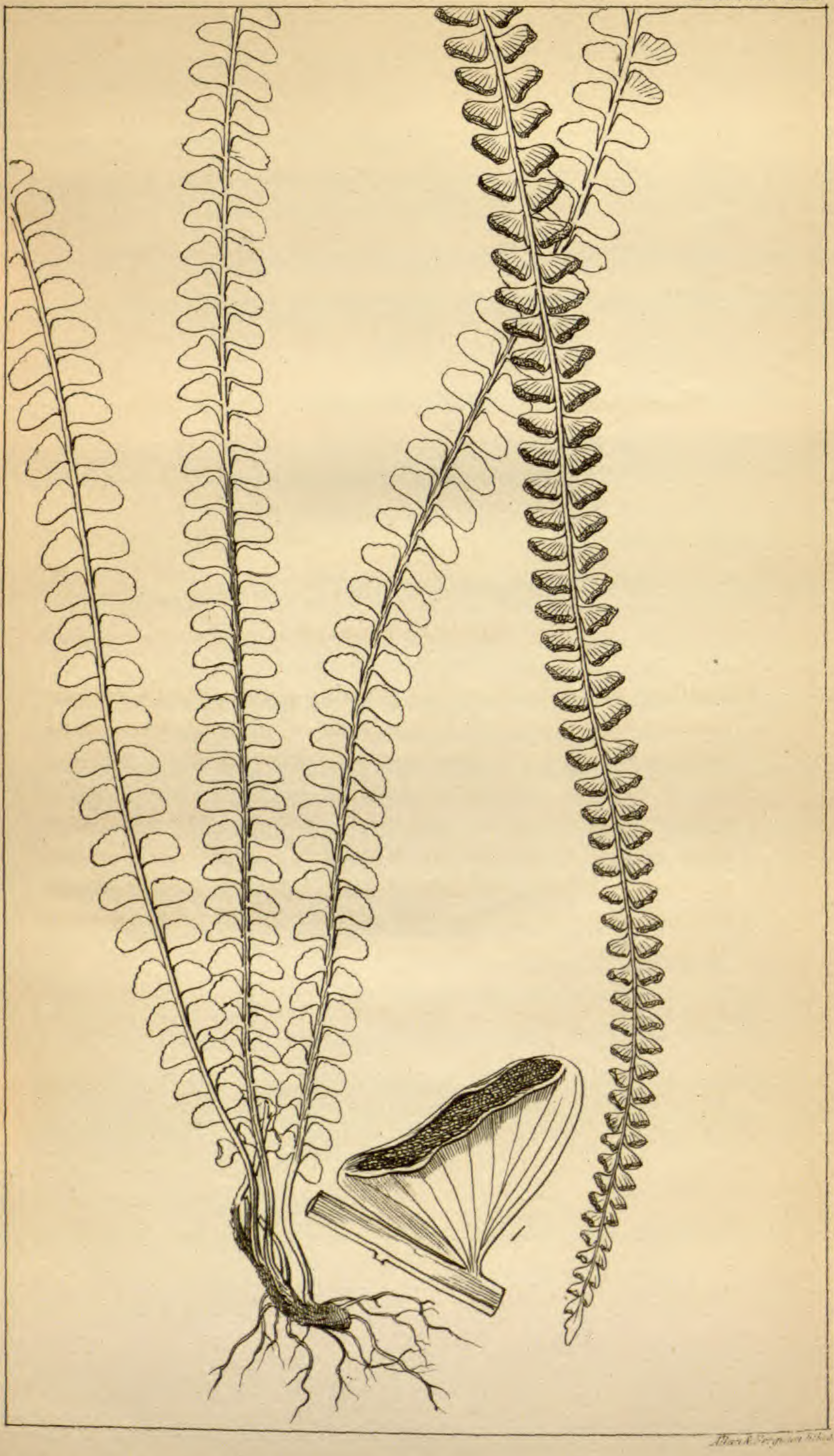
Undique pubescens, frondibus pinnatis, pinnis cordato-oblongis subfalcatis inferioribus (sterilibus) cordatis, soris submarginalibus angustis.

HAB. Rocks on the more elevated mountains of Juan Fernandez. *Bertero.* 1830.

Cæspitosum. *Frondes* una cum stipitem pubescentem subpaleaceum vix spithameæ, pinnatæ, pinnis remotiusculis, cordato-oblongis, sessilibus, inferioribus (sterilibus) cordatis, omnibus teneris, submembranaceis, utrinque pubescentibus, summis parvis confluentibus. *Sori* prope marginem siti, a costa remoti, angusti.

The lamented Bertero, from whom alone I have received specimens of this plant, had marked it doubtfully as a variety of *B. hastatum*, Kaulf. or of *B. ciliatum*, Presl: but it is very different from both, and one of the most distinct species of a very difficult genus.

Fig. 1. Upper side of a sterile pinna. *f.* 2. Under side of a fertile one:—*magnified.*



TAB. XCVIII.

LINDSÆA ELEGANS.

Frondibus elongatis linearibus pinnatis glabris, pinnis oblique cuneato-flabelliformibus integerrimis angulis obtusis, soris ad marginem superiorem continuis, stipite perbrevi.

HAB. Columbia. *Cuming* (*n.* 1101).

Caudex repens, radicatus. *Stipes* fere nullus. *Frondes* subsessiles, elongatæ, pedales ad sesquipedalem, glabræ, lineares, pinnatæ. *Pinnæ* subopppositæ, oblique cuneato-flabellatæ, radiatim nervosæ, integerrimæ, angulis obtusis. *Sori* continui ad marginem superiorem pinnarum.

Fig. 1. Fertile pinna :—*magnified.*

Allan & Ferguson lithog.

TAB. XCIX.

Cremolobus sinuatus.

Annuus, foliis suboppositis ovatis petiolatis grosse serratis, racemis subpaniculatis, siliculæ valvis orbiculatis lato-marginatis profunde sinuato-lobatis sinubus angustis obtusis lobis retusis stylo elongato pyramidato terminatis.

Hab. Cuesto of Puruchuco, Peru. *Mathews* (*without No.*).

In general habit this bears a considerable resemblance to *Cremolobus rhomboideus*, figured in the present work (*t.* 32), being a slender annual, with few petiolated leaves; but the racemes are paniculated, the pedicels, in fruit, much shorter, and there is so remarkable a form of the silicula, that this species never can be confounded with any other.

Fig. 1. Silicula :—*magnified.*

Allan & Ferguson Edinb.

TAB. C.

Cremolobus pinnatifidus.

Annuus, foliis oblongis sessilibus sublyrato-pinnatifidis, racemis terminalibus demum valde elongatis, siliculæ valvis orbiculatis rugosis lato-marginatis crenatis stylo elongato pyramidato terminatis.

Hab. Sunny banks, Huamantanga, Prov. of Canta, Peru. *Mathews* (*n.* 590).

Radix parva, annua. *Caulis* digitalis ad palmarem, prope basin divisus, angulatus. *Folia* plerumque alterna, oblonga, sessilia, sublyrato-pinnatifida, glabra. *Racemi* terminales, demum valde elongati. *Flores* majusculi, albi. *Sepala* ovata, concava, glabra, petalis obovatis breviora. *Ovarium* longe stipitatum, cordato-sagittatum. *Stigma* capitatum.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Silicula :—*magnified.*